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 Ile Gln Ala Glu Gln Ile Val Ile Lys Ile Thr Asp Gln Gly Tyr Val
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 Thr Ser His Gly Asp His Tyr His Tyr Tyr Asn Gly Lys Val Pro Tyr
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 Asp Ala Leu Phe Ser Glu Glu Leu Leu Met Lys Asp Pro Asn Tyr Gln
 100 105 110
 Leu Lys Asp Ala Asp Ile Val Asn Glu Val Lys Gly Gly Tyr Ile Ile
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 Asp Asn Val Arg Thr Lys Asp Glu Ile Asn Arg Gln Lys Gln Glu His
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 Val Lys Asp Asn Glu Lys Val Asn Ser Asn Val Ala Val Ala Arg Ser
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 Gln Gly Arg Tyr Thr Thr Asn Asp Gly Tyr Val Phe Asn Pro Ala Asp
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 Ile Ile Glu Asp Thr Gly Asn Ala Tyr Ile Val Pro His Gly Gly His
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 Tyr His Tyr Ile Pro Lys Ser Asp Leu Ser Ala Ser Glu Leu Ala Ala
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 225 230 235 240
 Tyr Ser Ser Thr Ala Ser Asp Asn Asn Thr Gln Ser Val Ala Lys Gly
 245 250 255
 Ser Thr Ser Lys Pro Ala Asn Lys Ser Glu Asn Leu Gln Ser Leu Leu
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 Lys Glu Leu Tyr Asp Ser Pro Ser Ala Gln Arg Tyr Ser Glu Ser Asp
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 Gly Leu Val Phe Asp Pro Ala Lys Ile Ile Ser Arg Thr Pro Asn Gly
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 Val Ala Ile Pro His Gly Asp His Tyr His Phe Ile Pro Tyr Ser Lys
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 Ser Leu Gly Ser Leu Ser Ser Asn Pro Ser Ser Leu Thr Thr Ser Lys
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 Val Glu Glu Thr Ala Thr Ala Tyr Ile Val Arg His Gly Asp His Phe
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 His Tyr Ile Pro Lys Ser Asn Gln Ile Gly Gln Pro Thr Leu Pro Asn
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 Ser His Glu Lys His Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg
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 Ile Ile Ala Glu Asp Glu Ser Gly Phe Val Met Ser His Gly Asp His
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 Asp Tyr Pro Glu Val Ser Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser
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 Gly Asp Thr Tyr Leu Arg Val Asn Pro Gln Phe Ala Val Pro Lys Gly
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 Thr Asp Ala Leu Val Arg Val Phe Asp Glu Phe His Gly Asn Ala Tyr
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 Phe Met Ala Asn Ala Tyr Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu
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 Lys Val Glu Glu Pro Lys Thr Ser Glu Lys Val Glu Lys Glu Lys Leu
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 Ser Glu Thr Gly Asn Ser Thr Ser Asn Ser Thr Leu Glu Glu Val Pro
 850 855 860
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 Gly Met Lys Leu Glu Asn Val Leu Phe Asn Met Asp Gly Thr Ile Glu

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Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	
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Ala	Arg	Gly	Val		Ala	Val	Pro	His	Gly	Asn	His	Tyr	His	Phe
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Tyr	Glu	Gln	Met	Ser	Glu	Leu	Glu	Lys	Arg	Ile	Ala	Arg	Ile	Ile
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Leu	Arg	Tyr	Arg	Ser	Asn	His	Trp	Val	Pro	Asp	Ser	Arg	Pro	Glu
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	370				375					380				
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385				390					395					400
Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr	Val	Phe	Glu	Glu
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Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asn	Leu	Ser	Ala	Glu	Thr
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Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Ala	Leu	Asp	Asn	Leu	Leu
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Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys	Leu	Val	Asp	Asp
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Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr	Pro	His	Met	Thr
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Glu	Lys	Pro	Glu	Glu	Glu	Thr	Pro	Arg	Glu	Glu	Lys	Pro	Gln	Ser
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Gln Lys Ala Glu Asn Leu Thr Pro Asp Glu Val Ser Lys Arg Glu Gly
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65 70 75 80
Thr Ser His Gly Asp His Tyr His Tyr Tyr Asn Gly Lys Val Pro Tyr
85 90 95 Asp Ala Ile
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Ala Gln Gly Arg Tyr Thr Thr Asp Asp Gly Tyr Ile Phe Asn Ala Ser
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Asp Ile Ile Glu Asp Thr Gly Asp Ala Tyr Ile Val Pro His Gly Asp
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His Tyr His Tyr Ile Pro Lys Asn Glu Leu Ser Ala Ser Glu Leu Ala
210 215 220
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225 230 235 240
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245 250 255
His Asn Leu Thr Val Thr Pro Thr Tyr His Gln Asn Gln Gly Glu Asn
260 265 270
Ile Ser Ser Leu Leu Arg Glu Leu Tyr Ala Lys Pro Leu Ser Glu Arg
275 280 285
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290 295 300
Arg Thr Ala Arg Gly Val Ala Val Pro His Gly Asn His Tyr His Phe
305 310 315 320
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Ile Pro Leu Arg Tyr Arg Ser Asn His Trp Val Pro Asp Ser Arg Pro
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Glu Gln Pro Ser Pro Gln Ser Thr Pro Glu Pro Ser Pro Ser Leu Gln
355 360 365
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385 390 395 400
Glu Asn Gly Val Ser Arg Tyr Ile Pro Ala Lys Asp Leu Ser Ala Glu
405 410 415
Thr Ala Ala Gly Ile Asp Ser Lys Leu Ala Lys Gln Glu Ser Leu Ser
420 425 430
His Lys Leu Gly Ala Lys Lys Thr Asp Leu Pro Ser Ser Asp Arg Glu
435 440 445
Phe Tyr Asn Lys Ala Tyr Asp Leu Leu Ala Arg Ile His Gln Asp Leu

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	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Pro
	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr	Pro	His	Met
545	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg
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	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala
	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met
610	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile
625	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp
	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu
	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg	Pro	His	Ser
	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala
690	Asp	Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser
705	Glu	Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu
	Asn	Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu
	Thr	Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gln
	Ile	Asn	Ala	Lys	Ile	Ala	Asp	Ala	Glu	Ala	Leu					
770	Leu	Glu	Lys	Val	Thr	Asp	Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr
785	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn
	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser
	Gln	Pro	Ala	Pro	Ile	Gln										

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 120
 cagaaagaag gaattcaggc tgagcaaatt gtaatcaaaa ttacagatca gggctatgta
 180
 acgtcacacg gtgatcacta tcattactat aatgggaaag ttccttatga tgccctcttt
 240
 agtgaagaac tcttgatgaa ggatccaaac tatcaactta aagacgctga tattgtcaat

300
gaagtcaagg gtggttatat catcaaggtc gatggaaaat attatgtcta cctgaaagat
360
gcagctcatg ctgataatgt tcgaactaaa gatgaaatca atcgtcaaaa acaagaacat
420
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480
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720
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840
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1140
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1260
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1320
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1380
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1440
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1560
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1740
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1800
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1860
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1920
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1980
tcaacgttag aagaagttcc tacagtggat cctgtacaag aaaaagtagc aaaatttgct
2040
gaaagtatat ggatgaagct agaaaatgtc ttgtttaata tggacggaac aattgaatta
2100
tatttaccat cgggagaagt cattaaaaag aatatggcag attttacagg agaagcacct
2160
caaggaaatg gtgaaaataa accatctgaa aatggaaaag tatctactgg aacagttgag
2220

aaccaaccaa cagaaaataa accagcagat tctttaccag aggcacacaaa cgaaaaacct
2280
gtaaaaccag aaaactcaac ggataatgga atgttgaatc cagaagggaa tgtggggagt
2340
gaccctatgt tagattcagc attagaggaa gctccagcag tagatcctgt acaagaaaaa
2400
ttagaaaaat ttacagctag ttacggatta ggcttagata gtgttatatt caatatggat
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2528

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Asn Leu Thr Pro Asp Gln Val Ser Gln Lys Glu Gly Ile Gln Ala Glu
35 40 45
Gln Ile Val Ile Lys Ile Thr Asp Gln Gly Tyr Val Thr Ser His Gly
50 55 60
Asp His Tyr His Tyr Tyr Asn Gly Lys Val Pro Tyr Asp Ala Leu Phe
65 70 75 80
Ser Glu Glu Leu Leu Met Lys Asp Pro Asn Tyr Gln Leu Lys Asp Ala
85 90 95
Asp Ile Val Asn Glu Val Lys Gly Gly Tyr Ile Ile Lys Val Asp Gly
100 105 110
Lys Tyr Tyr Val Tyr Leu Lys Asp Ala Ala His Ala Asp Asn Val Arg
115 120 125
Thr Lys Asp Glu Ile Asn Arg Gln Lys Gln Glu His Val Lys Asp Asn
130 135 140
Glu Lys Val Asn Ser Asn Val Ala Val Ala Arg Ser Gln Gly Arg Tyr
145 150 155 160
Thr Thr Asn Asp Gly Tyr Val Phe Asn Pro Ala Asp Ile Ile Glu Asp
165 170 175
Thr Gly Asn Ala Tyr Ile Val Pro His Gly Gly His Tyr His Tyr Ile
180 185 190
Pro Lys Ser Asp Leu Ser Ala Ser Glu Leu Ala Ala Ala Lys Ala His
195 200 205
Leu Ala Gly Lys Asn Met Gln Pro Ser Gln Leu Ser Tyr Ser Ser Thr
210 215 220
Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys His
225 230 235 240
Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp
245 250 255
Glu Ser Gly Phe Val Met Ser His Gly Asp His Asn His Tyr Phe Phe
260 265 270
Lys Lys Asp Leu Thr Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu
275 280 285
Glu Glu Val Lys Thr Ser His Asn Gly Leu Asp Ser Leu Ser Ser His
290 295 300
Glu Gln Asp Tyr Pro Ser Asn Ala Lys Glu Met Lys Asp Leu Asp Lys
305 310 315 320
Lys Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys
325 330 335
Arg Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro
340 345 350
His Gly Asp His His His Ala Asp Pro Ile Asp Glu His Lys Pro Val
355 360 365

Gly Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu
 370 375 380
 Gly Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu
 385 390 395 400
 Thr Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe Asn Asn Gln Asn
 405 410 415
 Phe Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Pro
 420 425 430
 Glu Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr
 435 440 445
 Pro Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu
 450 455 460
 Gly Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro
 465 470 475 480
 Gly Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp Tyr Pro Glu Val
 485 490 495
 Ser Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu Ala Tyr Lys Met
 500 505 510
 Ala Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly Asp Thr Tyr Leu
 515 520 525
 Arg Val Asn Pro Gln Phe Ala Val Pro Lys Gly Thr Asp Ala Leu Val
 530 535 540
 Arg Val Phe Asp Glu Phe His Gly Asn Ala Tyr Leu Glu Asn Asn Tyr
 545 550 555 560
 Lys Val Gly Glu Ile Lys Leu Pro Ile Pro Lys Leu Asn Gln Gly Thr
 565 570 575
 Thr Arg Thr Ala Gly Asn Lys Ile Pro Val Thr Phe Met Ala Asn Ala
 580 585 590
 Tyr Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu
 595 600 605
 Lys Glu Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro Gln Phe Lys Arg
 610 615 620
 Asn Lys Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys Val Glu Glu Pro
 625 630 635 640
 Lys Thr Ser Glu Lys Val Glu Lys Glu Lys Leu Ser Glu Thr Gly Asn
 645 650 655
 Ser Thr Ser Asn Ser Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val
 660 665 670
 Gln Glu Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu
 675 680 685
 Asn Val Leu Phe Asn Met Asp Gly Thr Ile Glu Leu Tyr Leu Pro Ser
 690 695 700
 Gly Glu Val Ile Lys Lys Asn Met Ala Asp Phe Thr Gly Glu Ala Pro
 705 710 715 720
 Gln Gly Asn Gly Glu Asn Lys Pro Ser Glu Asn Gly Lys Val Ser Thr
 725 730 735
 Gly Thr Val Glu Asn Gln Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu
 740 745 750
 Pro Glu Ala Pro Asn Glu Lys Pro Val Lys Pro Glu Asn Ser Thr Asp
 755 760 765
 Asn Gly Met Leu Asn Pro Glu Gly Asn Val Gly Ser Asp Pro Met Leu
 770 775 780
 Asp Ser Ala Leu Glu Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys
 785 790 795 800
 Leu Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile
 805 810 815
 Phe Asn Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val
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 835 840

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 <211> 94
 <212> PRT
 <213> Unknown

<220>
<223> 4D4.9

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1 5 10 15
Gly Lys Val Pro Tyr Asp Ala Leu Phe Ser Glu Glu Leu Leu Met Lys
20 25 30
Asp Pro Asn Tyr Gln Leu Lys Asp Ala Asp Ile Val Asn Glu Val Lys
35 40 45
Gly Gly Tyr Ile Ile Lys Val Asp Gly Lys Tyr Tyr Val Tyr Leu Lys
50 55 60
Asp Ala Ala His Ala Asp Asn Val Arg Thr Lys Asp Glu Ile Asn Arg
65 70 75 80
Gln Lys Gln Glu His Val Lys Asp Asn Glu Lys Val Asn Ser
85 90

<210> 12
<211> 42
<212> PRT
<213> Unknown

<220>
<223> 7G11.7

<400> 12
Gly Ile Gln Ala Glu Gln Ile Val Ile Lys Ile Thr Asp Gln Gly Tyr
1 5 10 15
Val Thr Ser His Gly Asp His Tyr His Tyr Tyr Asn Gly Lys Val Pro
20 25 30
Tyr Asp Ala Leu Phe Ser Glu Glu Leu Leu
35 40

<210> 13
<211> 39
<212> PRT
<213> Unknown

<220>
<223> 7G11.9

<400> 13
Thr Ala Tyr Ile Val Arg His Gly Asp His Phe His Tyr Ile Pro Lys
1 5 10 15
Ser Asn Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala Thr
20 25 30
Pro Ser Pro Ser Leu Pro Ile
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<210> 14
<211> 36
<212> PRT
<213> Unknown

<220>
<223> 4D3.4

<400> 14
Thr Ser Asn Ser Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val Gln
1 5 10 15
Glu Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn
20 25 30
Val Leu Phe Asn
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<210> 15
<211> 24
<212> PRT
<213> Unknown

<220>
<223> 8E3.1

<400> 15
Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys
1 5 10 15
Lys Asn Leu Ser Asp Phe Ile Ala
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<210> 16
<211> 35
<212> PRT
<213> Unknown

<220>
<223> 1G2.2

<400> 16
Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe Asn Met Asp Gly Thr Ile
1 5 10 15
Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Leu Ser Asp
20 25 30
Phe Ile Ala
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<210> 17
<211> 57
<212> PRT
<213> Unknown

<220>
<223> 10C12.7

<400> 17
Pro Ala Leu Glu Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu
1 5 10 15
Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe
20 25 30
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35 40 45
Lys Lys Asn Leu Ser Asp Phe Ile Ala
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<210> 18
<211> 40
<212> PRT
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<220>
<223> 14F6.3

<400> 18
Lys Val Glu Glu Pro Lys Thr Ser Glu Lys Val Glu Lys Glu Lys Leu
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Ser Glu Thr Gly Asn Ser Thr Ser Asn Ser Thr Leu Glu Glu Val Pro
20 25 30
Thr Val Asp Pro Val Gln Glu Lys
35 40

<210> 19
<211> 78
<212> PRT
<213> Unknown

<220>
<223> B12D8.2

<400> 19
Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys Ile Ala Gly Ile Met
1 5 10 15
Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val Val Asn Lys Glu Lys
20 25 30
Asn Ala Ile Ile Tyr Pro His Gly Asp His His His Ala Asp Pro Ile
35 40 45
Asp Glu His Lys Pro Val Gly Ile Gly His Ser His Ser Asn Tyr Glu
50 55 60
Leu Phe Lys Pro Glu Glu Gly Val Ala Lys Lys Glu Gly Asn
65 70 75

<210> 20
<211> 51
<212> PRT
<213> Unknown

<220>
<223> 7F4.1

<400> 20
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1 5 10 15
Glu His Lys Pro Val Gly Ile Gly His Ser His Ser Asn Tyr Glu Leu
20 25 30
Phe Lys Pro Glu Glu Gly Val Ala Lys Lys Glu Gly Asn Lys Val Tyr
35 40 45
Thr Gly Glu
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<210> 21
<211> 29
<212> PRT
<213> Unknown

<220>
<223> 10D7.5

<400> 21
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1 5 10 15
Ile Phe Asp Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp
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<210> 22
<211> 86
<212> PRT
<213> Unknown

<220>
<223> 10G9.3 and 10A2.2 and B11B8.1

<400> 22
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Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro
20 25 30

Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile
 35 40 45
 Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu
 50 55 60
 Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala
 65 70 75 80
 Thr Val Lys Tyr Tyr Val
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<210> 23
 <211> 41
 <212> PRT
 <213> Unknown

<220>
 <223> 11B8.4

<400> 23
 Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala
 1 5 10 15
 Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg Pro His Ser Asp
 20 25 30
 Asn Gly Phe Gly Asn Ala Ser Asp His
 35 40

<210> 24
 <211> 69
 <212> PRT
 <213> Unknown

<220>
 <223> 3A4.1

<400> 24
 Val Glu Asn Ser Val Ile Asn Ala Lys Ile Ala Asp Ala Glu Ala Leu
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 Leu Glu Lys Val Thr Asp Pro Ser Ile Arg Gln Asn Ala Met Glu Thr
 20 25 30
 Leu Thr Gly Leu Lys Ser Ser Leu Leu Gly Thr Lys Asp Asn Asn
 35 40 45
 Thr Ile Ser Ala Glu Val Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser
 50 55 60
 Gln Pro Ala Pro Ile
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<210> 25
 <211> 27
 <212> DNA
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<220>
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<210> 26
 <211> 33
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 <213> Unknown

<220>
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<210> 27
<211> 30
<212> DNA
<213> Unknown

<220>
<223> OCRR 497

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<210> 28
<211> 26
<212> DNA
<213> Unknown

<220>
<223> OCRR 498

<400> 28
ctgctaagct tatgaaagat ttagat
26

<210> 29
<211> 24
<212> DNA
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<220>
<223> OCRR 499

<400> 29
gatactcgag ctgctattcc ttac
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<210> 30
<211> 28
<212> DNA
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<220>
<223> HAMJ 172

<400> 30
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<210> 31
<211> 32
<212> DNA
<213> Unknown

<220>
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<400> 31
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<210> 32

<211> 37
<212> DNA
<213> Unknown

<220>
<223> HAMJ 248

<400> 32
gacgctcgag ggcattacct ggataatcct gttcatg
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<210> 33
<211> 33
<212> DNA
<213> Unknown

<220>
<223> HAMJ 249

<400> 33
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<210> 34
<211> 40
<212> DNA
<213> Unknown

<220>
<223> HAMJ 278

<400> 34
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<210> 35
<211> 32
<212> DNA
<213> Unknown

<220>
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<400> 35
cgccaagctt cgctatgaaa tcagataaat tc
32

<210> 36
<211> 34
<212> DNA
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<220>
<223> HAMJ 280

<400> 36
cgccaagctt ttccacaata taagtcgatt gatt
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<210> 37
<211> 40
<212> DNA
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<220>

<223> HAMJ 281

<400> 37
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<210> 38
<211> 37
<212> DNA
<213> Unknown

<220>
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<400> 38
ttatttcttc catatggtgc ctatgcacta aaccagc
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<210> 39
<211> 40
<212> DNA
<213> Unknown

<220>
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<210> 40
<211> 31
<212> DNA
<213> Unknown

<220>
<223> OCRR 487

<400> 40
cagtagatct gtgcttatga actaggtttg c
31

<210> 41
<211> 32
<212> DNA
<213> Unknown

<220>
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<400> 41
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32

<210> 42
<211> 26
<212> DNA
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<220>
<223> HAMJ 171

<400> 42
ctgagatatc cgttatcggt caaacc
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<210> 43
<211> 28
<212> DNA
<213> Unknown

<220>
<223> HAMJ 251

<400> 43
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<210> 44
<211> 29
<212> DNA
<213> Unknown

<220>
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<400> 44
cagtagatct gcagaagcct tcctatctg
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<210> 45
<211> 33
<212> DNA
<213> Unknown

<220>
<223> HAMJ 282

<400> 45
tcgccaagct tcgttatcgt tcaaaccatt ggg
33

<210> 46
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 283

<400> 46
ataagaatgc ggccgcctta ctctccttta ataaagccaa tagtt
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<210> 47
<211> 34
<212> DNA
<213> Unknown

<220>
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<400> 47
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<210> 48
<211> 37
<212> DNA
<213> Unknown

<220>
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<400> 48
cgccaagctt cttactctcc tttataaag ccaatag
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<210> 49
<211> 31
<212> DNA
<213> Unknown

<220>
<223> HAMJ 286

<400> 49
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31

<210> 50
<211> 30
<212> DNA
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<220>
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<400> 50
cataccatgg gcctttatga ggcacctaag
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<210> 51
<211> 34
<212> DNA
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<220>
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<400> 51
cgacaagctt aagtaaactc tcagcctctc tcag
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<210> 52
<211> 31
<212> DNA
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<220>
<223> HAMJ 289

<400> 52
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<210> 53
<211> 36
<212> DNA
<213> Unknown

<220>
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<400> 53

cgccaagctt atcatccact aacttgactt tatcac
36

<210> 54
<211> 33
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<220>
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<400> 54
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<210> 55
<211> 30
<212> DNA
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<220>
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<400> 55
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<210> 56
<211> 32
<212> DNA
<213> Unknown

<220>
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<400> 56
cgccaagctt tagcgttacc aaaaccatta tc
32

<210> 57
<211> 36
<212> DNA
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<220>
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<400> 57
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36

<210> 58
<211> 28
<212> DNA
<213> Unknown

<220>
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<400> 58
cgctctaga ctactgtata ggagccgg
28

<210> 59
<211> 34

<212> DNA
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<220>
<223> HAMJ 292

<400> 59
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<210> 60
<211> 34
<212> DNA
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<220>
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<210> 61
<211> 34
<212> DNA
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<220>
<223> HAMJ 294

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34

<210> 62
<211> 30
<212> DNA
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<220>
<223> HAMJ 297

<400> 62
catgccatgg aagcctattg gaatgggaag
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<210> 63
<211> 31
<212> DNA
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<220>
<223> HAMJ 352

<400> 63
catgccatgg aagcctattg gaatgggaag c
31

<210> 64
<211> 31
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<220>
<223> HAMJ 353

<400> 64
cgccaagctt gtaggtaatt tgcgcatttg g
31

<210> 65
<211> 30
<212> DNA
<213> Unknown

<220>
<223> HAMJ 354

<400> 65
cgccaagctt ctgtatagga gccggttgac
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<210> 66
<211> 32
<212> DNA
<213> Unknown

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35 40 45
Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg
50 55 60
Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His
65 70 75 80
Gly Asp His His His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly
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Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly
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145 150 155 160
Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro
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35 40 45
Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg
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Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His
65 70 75 80
Gly Asp His His His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly
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Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly
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Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr
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Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Pro Glu
145 150 155 160
Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro
165 170 175
Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly
180 185 190
Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly
195 200 205
Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp Tyr Pro Glu Val Ser
210 215 220
Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu Ala Tyr Lys Met Ala
225 230 235 240
Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly Asp Thr Tyr Leu Arg
245 250 255
Val Asn Pro Gln Phe Ala Val Pro Lys Gly Thr Asp Ala Leu Val Arg
260 265 270
Val Phe Asp Glu Phe His Gly Asn Ala Tyr Leu Glu Asn Asn Tyr Lys
275 280 285
Val Gly Glu Ile Lys Leu Pro Ile Pro Lys Leu Asn Gln Gly Thr Thr
290 295 300
Arg Thr Ala Gly Asn Lys Ile Pro Val Thr Phe Met Ala Asn Ala Tyr
305 310 315 320
Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu Lys
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Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	
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Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	
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Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	
				245					250					255		
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	
			260					265					270			
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	
		275					280					285				
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	
	290					295					300					
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	
305					310					315					320	
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	
				325					330					335		
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	
			340					345					350			
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	
		355					360					365				
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	
	370					375					380					
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	
385					390					395					400	
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	
				405					410					415		
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	
			420					425					430			
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	
		435				440					445					
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	
	450					455				460						
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	
465					470					475					480	
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	
				485					490					495		
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	
			500					505					510			
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	
		515					520					525				
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	
	530					535				540						
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	
545					550					555					560	
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala								
				565												

<210> 257
 <211> 819
 <212> DNA
 <213> Unknown

<220>
 <223> NEW43 gene

<400> 257
 atgcaaatta cctacactga tgatgagatt caggtagcca agttggcagg caagtacaca
 60
 acagaagacg gttatatctt tgatactagt tggattaaaa aagatagttt gtctgaagct
 120
 gagagagcgg cagcccaggc ttatgctaaa gagaaagggt tgacccctcc ttcgacagac
 180
 caccaggatt caggaaatac tgaggcaaaa ggagcagaag ctatctacaa ccgcgtgaaa
 240
 gcagctaaga aggtgccact tgatcgtatg ccttacaatc ttcagtatac tgtagaagtc

300
 aaaaacggta gtttaatcat acctcattat gaccattacc ataacatcaa atttgagtgg
 360
 tttagcgaag gcctttatga ggcacctaag gggatatagtc ttgaggatct tttggcgact
 420
 gtcaagtact atgtcgaacc gcggaacgct agtgaccatg ttcgtaaaaa taaggcagac
 480
 caagatagta aacctgatga agataaggaa catgatgaag taagtgagcc aactcaccct
 540
 gaatctgatg aaaaagagaa tcacgctggg ttaaattcctt cagcagataa tctttataaa
 600
 ccaagcactg atacggaaga gacagaggaa gaagctgaag ataccacaga tgaggctgaa
 660
 attcctggta cccctagtag tagacaaaat gctatggaga cattgactgg tctaaaaagt
 720
 agtcttcttc tcggaacgaa agataataac actatttcag cagaagtaga tagtctcttg
 780
 gctttgttaa aagaaagtca accggctcct atacagtag
 819

<210> 258
 <211> 272
 <212> PRT
 <213> Unknown

<220>
 <223> NEW43 polypeptide

<400> 258
 Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
 1 5 10 15
 Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
 20 25 30
 Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Gln Ala Tyr
 35 40 45
 Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
 50 55 60
 Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
 65 70 75 80
 Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
 85 90 95
 Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp His
 100 105 110
 Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
 115 120 125
 Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
 130 135 140
 Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
 145 150 155 160
 Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
 165 170 175
 Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
 180 185 190
 Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
 195 200 205
 Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
 210 215 220
 Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
 225 230 235 240
 Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
 245 250 255
 Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
 260 265 270

<210> 259

<211> 36
<212> DNA
<213> Unknown

<220>
<223> HAMJ 490

<400> 259
ccgaattcca tatgcaaatt acctacactg atgatg
36

<210> 260
<211> 29
<212> DNA
<213> Unknown

<220>
<223> HAMJ 491

<400> 260
ggactagtat caaagatata accgtcttc
29

<210> 261
<211> 33
<212> DNA
<213> Unknown

<220>
<223> HAMJ 492

<400> 261
ggactagttg gattaataaaa gatagtttctg
33

<210> 262
<211> 32
<212> DNA
<213> Unknown

<220>
<223> HAMJ 493

<400> 262
ttcccgcggt tcgacatagt acttgacagt cg
32

<210> 263
<211> 29
<212> DNA
<213> Unknown

<220>
<223> HAMJ 494

<400> 263
ttcccgcgga acgctagtga ccatgttcg
29

<210> 264
<211> 31
<212> DNA
<213> Unknown

<220>

<223> HAMJ 495

<400> 264

cggggtacca ggaatttcag cctcatctgt g
31

<210> 265

<211> 36

<212> DNA

<213> Unknown

<220>

<223> HAMJ 496

<400> 265

cccggtaccc ctagtattag acaaaatgct atggag
36

<210> 266

<211> 29

<212> DNA

<213> Unknown

<220>

<223> HAMJ 583

<400> 266

ggatcccggg aggtatgatt aaactaccg
29

<210> 267

<211> 34

<212> DNA

<213> Unknown

<220>

<223> HAMJ 584

<400> 267

catgcccggg aacatcaaatttgagtgggtt tgac
34

<210> 268

<211> 37

<212> DNA

<213> Unknown

<220>

<223> HAMJ 610

<400> 268

cttgatcgac atatgttggc aggcaagtac acaacag
37

<210> 269

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 497

<400> 269

aacggtagtt taatcatacc ttcttatgac cattaccata acatc
45

<210> 270
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 498

<400> 270
gatggttatgg taatgggtcat aagaaggat gattaaacta ccggtt
45

<210> 271
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 499

<400> 271
aatcatacct tcttatgact cttaccataa catcaaattt gagtg
45

<210> 272
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 500

<400> 272
cactcaaatt tgatggtatg gtaagagtca taagaaggta tgatt
45

<210> 273
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 501

<400> 273
taccttctta tgactcttac tctaacatca aatttgagtg gtttg
45

<210> 274
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 502

<400> 274
caaaccactc aaatttgatg ttagagtaag agtcataaga aggta
45

<210> 275
<211> 45
<212> DNA
<213> Unknown

<220>

<223> HAMJ 530

<400> 275

aatcatacct cattatgact cttaccataa catcaaattt gagtg
45

<210> 276

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 531

<400> 276

cactcaaatt tgatggttatg gtaagagtca taatgaggta tgatt
45

<210> 277

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 532

<400> 277

tacctcatta tgaccattac tctaacatca aatttgagtg gtttg
45

<210> 278

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 533

<400> 278

caaaccactc aaatttgatg ttagagtaat ggtcataatg aggta
45

<210> 279

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 569

<400> 279

tacctcatta tgactcttac tctaacatca aatttgagtg gtttg
45

<210> 280

<211> 45

<212> DNA

<213> Unknown

<220>

<223> HAMJ 570

<400> 280

caaaccactc aaatttgatg ttagagtaag agtcataatg aggta
45

<210> 281
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 571

<400> 281
taccttctta tgaccattac tctaacatca aatttgagtg gtttg
45

<210> 282
<211> 44
<212> DNA
<213> Unknown

<220>
<223> HAMJ 572

<400> 282
aaaccactca aatttgatgt tagagtaatg gtcataagaa ggta
44

<210> 283
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 573

<400> 283
aacggtagtt taatcatacc ttctaaagac cattaccata acatc
45

<210> 284
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 574

<400> 284
gatggttatgg taatgggtctt tagaagggtat gattaaacta ccggt
45

<210> 285
<211> 46
<212> DNA
<213> Unknown

<220>
<223> HAMJ 575

<400> 285
cggtagtttta atcatacctc ataaggactc ttaccataac atcaaa
46

<210> 286
<211> 46

<212> DNA
<213> Unknown

<220>
<223> HAMJ 576

<400> 286
tttgatgtta tggtaagagt ccttatgagg tatgattaaa ctaccg
46

<210> 287
<211> 46
<212> DNA
<213> Unknown

<220>
<223> HAMJ 577

<400> 287
aacggtagtt taatcatacc tgaccattac cataacatca aatttg
46

<210> 288
<211> 46
<212> DNA
<213> Unknown

<220>
<223> HAMJ 578

<400> 288
caaatttgat gttatggtaa tggtcaggta tgattaaact accgtt
46

<210> 289
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 579

<400> 289
aacggtagtt taatcatacc ttaccataac atcaaatttg agtgg
45

<210> 290
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 580

<400> 290
ccactcaaat ttgatgttat ggtaaggat gattaaacta ccgtt
45

<210> 291
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 581

<400> 291
accggtagtt taatcatacc taacatcaaa tttgagtggg ttgac
45

<210> 292
<211> 45
<212> DNA
<213> Unknown

<220>
<223> HAMJ 582

<400> 292
gtcaaaccac tcaaatttga tgttaggtat gattaaacta ccggt
45

<210> 293

<211> 272
<212> PRT
<213> Unknown

<220>
<223> NEW 60

<400> 293
Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
1 5 10 15
Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
20 25 30
Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp His
100 105 110
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
115 120 125
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
130 135 140
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
145 150 155 160
Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
165 170 175
Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
180 185 190
Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
195 200 205
Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
210 215 220
Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
225 230 235 240
Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
245 250 255
Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
260 265 270

<210> 294

<211> 272

<212> PRT
<213> Unknown

<220>
<223> NEW 61

<400> 294
Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
1 5 10 15
Gly Lys Tyr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
20 25 30
Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp Ser
100 105 110
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
115 120 125
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
130 135 140
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
145 150 155 160
Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
165 170 175
Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
180 185 190
Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
195 200 205
Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
210 215 220
Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
225 230 235 240
Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
245 250 255
Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
260 265 270

<210> 295

<211> 272
<212> PRT
<213> Unknown

<220>
<223> NEW 62

<400> 295
Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
1 5 10 15
Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
20 25 30
Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp His

			100					105				110			
Tyr	Ser	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155					160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245				250						255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		

<210> 296

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 80

<400> 296

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85				90					95		
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	Ser
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155					160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245				250						255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln

260

265

270

<210> 297

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 81

<400> 297

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	Ser
			100					105					110		
Tyr	Ser	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235				240	
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		

<210> 298

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 82

<400> 298

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				

Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	Ser
			100					105					110		
Tyr	Ser	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
		130				135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155					160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185						190	
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
		210				215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245				250						255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		

<210> 299

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 83

<400> 299

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
		50				55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	His
			100					105					110		
Tyr	Ser	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
		130				135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155					160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
		210				215					220				

Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		

<210> 300

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 84

<400> 300

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50				55					60					
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Lys	Asp	His
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130				135						140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210				215						220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		

<210> 301

<211> 272

<212> PRT

<213> Unknown

<220>

<223> NEW 85

<400> 301

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile

			20					25					30			
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	
		35					40					45				
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	
	50					55					60					
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	
65					70					75					80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	
				85					90					95		
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	His	Lys	Asp	Ser	
			100					105					110			
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	
		115					120					125				
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	
	130					135					140					
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	
145					150					155					160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	
				165					170					175		
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	
			180					185					190			
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	
		195					200					205				
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	
		210				215					220					
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	
225					230					235					240	
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	
				245					250					255		
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	
			260					265					270			

<210> 302

<211> 270

<212> PRT

<213> Unknown

<220>

<223> NEW 88D1

<400> 302

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala	
1				5				10						15		
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile	
			20					25					30			
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	
		35					40					45				
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	
	50					55					60					
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	
65					70					75					80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	
				85					90					95		
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asp	His	Tyr	His	
			100					105					110			
Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	
		115					120					125				
Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu		
	130					135				140						
Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	
145					150					155					160	
Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	
				165					170					175		
His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	

Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu
		180						185					190		
Glu	Ala	195	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser
	210					215					220				
Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu
225					230					235					240
Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser
				245					250					255	
Leu	Leu	Ala	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln			
		260					265					270			

<210> 303

<211> 268

<212> PRT

<213> Unknown

<220>

<223> NEW 88D2

<400> 303

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Tyr	His	Asn	Ile
			100					105					110		
Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr
		115				120					125				
Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg
	130					135					140				
Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys
145					150					155					160
Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro
				165					170					175	
Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp
		180						185					190		
Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala
		195					200					205			
Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg
	210					215					220				
Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu
225					230					235					240
Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu
				245					250					255	
Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln				
		260						265							

<210> 304

<211> 266

<212> PRT

<213> Unknown

<220>

<223> NEW 88

<400> 304

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20				25						30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe
			100					105					110		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
		115				120						125			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
	130					135					140				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
145					150					155					160
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
				165					170					175	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
		180						185					190		
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
		195					200						205		
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
	210					215						220			
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
225					230					235					240
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
				245					250					255	
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln						
			260						265						

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<400> 305

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<210> 327
<211> 41
<212> DNA
<213> Unknown

<220>
<223> HAMJ 564

<400> 327
atatgggccc caaattacct acactgatga tgagattcag g
41

<210> 328
<211> 43
<212> DNA
<213> Unknown

<220>
<223> HAMJ 556

<400> 328
ataagaatgc ggccgcctac tgtataggag ccggttgact ttc
43

<210> 329
<211> 33
<212> DNA
<213> Unknown

<220>
<223> HAMJ 489

<400> 329
ccgaattcca tatgcaaatt gggcaaccga ctc
33

<210> 330
<211> 29
<212> DNA
<213> Unknown

<220>
<223> HAMJ 559

<400> 330
atatgggccc caaattgggc aaccgactc
29

<210> 331
<211> 41
<212> DNA
<213> Unknown

<220>
<223> HAMJ 557

<400> 331
ataagaatgc ggccgcttac gctatgaaat cagataaatt c
41

<210> 332

<211> 906
<212> PRT
<213> Unknown

<220>
<223> VP 94

<400> 332
Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
1 5 10 15
Gly Lys Tyr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
20 25 30
Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Gln Ala Tyr
35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp His
100 105 110
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
115 120 125
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
130 135 140
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
145 150 155 160
Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
165 170 175
Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
180 185 190
Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
195 200 205
Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
210 215 220
Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
225 230 235 240
Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
245 250 255
Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
260 265 270
Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala Thr
275 280 285
Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys His
290 295 300
Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp
305 310 315 320
Glu Ser Gly Phe Val Met Ser His Gly Asp Ser Asn His Tyr Phe Phe
325 330 335

Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu
			340					345					350		
Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His
		355					360					365			
Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys
	370					375					380				
Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys
385					390					395					400
Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro
			405						410					415	
Ser	Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val
			420					425					430		
Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu
		435					440					445			
Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu
	450					455					460				
Thr	Asn	Val	Val	Asn	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	
465					470				475						480
Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro
			485						490					495	
Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr
			500					505					510		
Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu
		515					520					525			
Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro
	530					535					540				
Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val
545					550					555					560
Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met
			565						570					575	
Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu
			580					585					590		
Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val
		595					600					605			
Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr
	610					615					620				
Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr
625					630					635					640
Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala
			645						650					655	
Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu
			660					665					670		
Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg
		675					680					685			
Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro
	690					695					700				
Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn
705					710					715					720
Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val
			725						730					735	
Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu
			740					745					750		
Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser
		755					760					765			
Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro
	770					775					780				
Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr
785					790					795					800
Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu
			805						810					815	
Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp
		820						825					830		
Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu
	835						840					845			
Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys

850	855	860
Leu Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile		
865	870	875
Phe Asn Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val		880
	885	890
Ile Lys Lys Asn Leu Ser Asp Phe Ile Ala		895
900	905	

<210> 333

<211> 900

<212> PRT

<213> Unknown

<220>

<223> VP 108

<400> 333

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
	35						40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
	115						120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
	195						200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210				215							220			
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		260						265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	275						280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340						345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355					360						365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr

370	375	380
Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu Lys		
385	390	395
Glu Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro Gln Phe Lys Arg Asn		400
	405	410
Lys Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys Val Glu Glu Pro Lys		415
	420	425
Thr Ser Glu Lys Val Glu Lys Glu Lys Leu Ser Glu Thr Gly Asn Ser		430
	435	440
Thr Ser Asn Ser Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val Gln		445
	450	455
Glu Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn		460
465	470	475
Val Leu Phe Asn Met Asp Gly Thr Ile Glu Leu Tyr Leu Pro Ser Gly		480
	485	490
Glu Val Ile Lys Lys Asn Met Ala Asp Phe Thr Gly Glu Ala Pro Gln		495
	500	505
Gly Asn Gly Glu Asn Lys Pro Ser Glu Asn Gly Lys Val Ser Thr Gly		510
	515	520
Thr Val Glu Asn Gln Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro		525
	530	535
Glu Ala Pro Asn Glu Lys Pro Val Lys Pro Glu Asn Ser Thr Asp Asn		540
545	550	555
Gly Met Leu Asn Pro Glu Gly Asn Val Gly Ser Asp Pro Met Leu Asp		560
	565	570
Pro Ala Leu Glu Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu		575
	580	585
Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe		590
	595	600
Asn Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile		605
	610	615
Lys Lys Asn Leu Ser Asp Phe Ile Ala Gly Pro Gln Ile Thr Tyr Thr		620
625	630	635
Asp Asp Glu Ile Gln Val Ala Lys Leu Ala Gly Lys Tyr Thr Thr Glu		640
	645	650
Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile Lys Lys Asp Ser Leu Ser		655
	660	665
Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu		670
	675	680
Thr Pro Pro Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys		685
	690	695
Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro		700
705	710	715
Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn		720
	725	730
Gly Ser Leu Ile Ile Pro Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly		735
	740	745
Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr		750
	755	760
Val Lys Tyr Tyr Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys		765
	770	775
Asn Lys Ala Asp Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp		780
785	790	795
Glu Val Ser Glu Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His		800
	805	810
Ala Gly Leu Asn Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp		815
	820	825
Thr Glu Glu Thr Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu		830
	835	840
Ile Pro Gly Thr Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr		845
	850	855
Gly Leu Lys Ser Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile		860
865	870	875
Ser Ala Glu Val Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro		880
	885	890
		895

Ala Pro Ile Gln
900

<210> 334

<211> 900

<212> PRT

<213> Unknown

<220>

<223> VP 109

<400> 334

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
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Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe
			100					105					110		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
		115					120					125			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
	130					135					140				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
145					150					155				160	
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
			165						170					175	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
			180					185					190		
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
		195					200					205			
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
	210					215						220			
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
225					230					235				240	
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
				245					250					255	
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Gly	Pro	Gln	Ile	Gly	Gln
			260					265					270		
Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	Pro
		275					280					285			
Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr	Gly
	290					295					300				
Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	Met
305					310				315					320	
Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu
			325						330				335		
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser
			340					345					350		
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly
		355				360						365			
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile
	370					375					380				
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val
385					390					395				400	
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser	Gly	Asp	His	His	His
				405					410					415	

Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His
			420					425					430		
Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu
		435					440					445			
Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu
	450					455					460				
Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly
465					470					475					480
Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu
			485					490						495	
Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu
		500						505					510		
Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala
	515						520					525			
Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr
	530					535					540				
Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe
545					550					555					560
Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe
				565					570						575
Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe
			580					585					590		
Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe
	595						600					605			
His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys
	610					615					620				
Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn
625					630					635					640
Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser
				645				650						655	
Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp
		660						665					670		
Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn
	675						680					685			
Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val
	690					695					700				
Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr
705					710					715					720
Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys
			725					730					735		
Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met
		740						745				750			
Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys
	755						760					765			
Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn
	770					775					780				
Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln
785					790					795					800
Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu
			805					810						815	
Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro
		820						825					830		
Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu
	835						840					845			
Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala
	850					855					860				
Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr
865					870					875					880
Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser
				885					890					895	
Asp	Phe	Ile	Ala												
			900												

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<212> PRT
<213> Unknown

<220>
<223> VP 110
<400> 335

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
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Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	His
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235				240	
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
		260						265					270		
Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr
		275					280					285			
Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His
	290					295					300				
Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp
305					310					315				320	
Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu
			325						330					335	
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser
			340					345					350		
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly
		355				360						365			
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile
	370					375					380				
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val
385					390					395				400	
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His	His
				405					410					415	
Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His
		420						425					430		
Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu
		435					440					445			
Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu
	450					455					460				

Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	465	470	475	480
Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	485	490	495	500
Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	505	510	515	520
Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	525	530	535	540
Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	545	550	555	560
Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	565	570	575	580
Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	585	590	595	600
Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	605	610	615	620
Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	625	630	635	640
His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	645	650	655	660
Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	665	670	675	680
Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	685	690	695	700
Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	705	710	715	720
Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	725	730	735	740
Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	745	750	755	760
Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	765	770	775	780
Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	785	790	795	800
Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	805	810	815	820
Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	825	830	835	840
Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	845	850	855	860
Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	865	870	875	880
Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	885	890	895	900
Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro				
Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu				
Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala				
Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr				
Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser				
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<210> 336

<211> 894

<212> PRT

<213> Unknown

<220>

<223> VP 111

<400> 336

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			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	His
			100					105						110	
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235				240	
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
		260						265					270		
Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr
		275					280					285			
Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His
	290						295					300			
Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp
305					310					315				320	
Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu
			325						330					335	
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser
			340					345					350		
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly
		355					360					365			
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile
	370					375					380				
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val
385					390					395				400	
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	Glu
				405					410					415	
His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe
		420						425					430		
Lys	Pro	Glu	Gly	Gly	Val	Ala	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	
		435					440				445				
Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe
	450					455					460				
Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe
465					470					475				480	
Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val
				485					490					495	
Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys

Val	Phe	Gly	500	Glu	Gly	Val	Gly	Asn	505	Ile	Ala	Asn	Phe	Glu	510	Leu	Asp	Gln
Pro	Tyr	515	Leu	Pro	Gly	Gln	Thr	Phe	520	Lys	Tyr	Thr	Ile	Ala	525	Ser	Lys	Asp
Tyr	Pro	530	Glu	Val	Ser	Tyr	Asp	Gly	535	Thr	Phe	Thr	540	Val	Pro	Thr	Ser	Leu
Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	570	Phe	Tyr	Pro	Phe	His	Ala	Gly		
Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	585	Phe	Ala	Val	Pro	Lys	Gly	Thr		
Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	600	Phe	His	Gly	Asn	Ala	Tyr	Leu		
Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	615	Lys	Leu	Pro	Ile	Pro	Lys	Leu		
Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	630	Asn	Lys	Ile	Pro	Val	Thr	Phe		
Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	645	Ser	Thr	Tyr	Ile	Val	Glu	Val		
Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	660	Asp	Lys	Pro	Ser	Ile	Leu	Pro		
Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	675	Asn	Ser	Lys	Leu	Asp	Glu	Lys		
Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	690	Val	Glu	Lys	Glu	Lys	Leu	Ser		
Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	705	Thr	Leu	Glu	Glu	Val	Pro	Thr		
Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	720	Lys	Phe	Ala	Glu	Ser	Tyr	Gly		
Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	735	Met	Asp	Gly	Thr	Ile	Glu	Leu		
Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	740	Lys	Asn	Met	Ala	Asp	Phe	Thr		
Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	755	Asn	Lys	Pro	Ser	Glu	Asn	Gly		
Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	770	Gln	Pro	Thr	Glu	Asn	Lys	Pro		
Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	785	Glu	Lys	Pro	Val	Lys	Pro	Glu		
Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	800	Pro	Glu	Gly	Asn	Val	Gly	Ser		
Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	815	Glu	Ala	Pro	Ala	Val	Asp	Pro		
Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	830	Ala	Ser	Tyr	Gly	Leu	Gly	Leu		
Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	845	Thr	Ile	Glu	Leu	Arg	Leu	Pro		
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<212> PRT

<220>

<400> 337

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Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys		
65					70					75					80		
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr		
				85					90					95			
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe		
			100					105					110				
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu		
		115					120					125					
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala		
	130					135					140						
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp		
145					150					155				160			
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser		
				165					170					175			
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu		
			180					185					190				
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp		
		195					200					205					
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn		
	210					215						220					
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr		
225					230					235					240		
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu		
				245					250					255			
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Gly	Pro	Gln	Ile	Gly	Gln		
			260						265				270				
Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	Pro		
		275					280					285					
Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr	Gly		
	290					295					300						
Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	Met		
305					310					315					320		
Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala		
				325					330					335			
Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser		
			340					345					350				
Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys		
		355					360					365					
Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln		
	370					375					380						
Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala		
385					390					395							

Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly
				565					570					575	
Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr
			580					585					590		
Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu
		595					600					605			
Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu
	610					615					620				
Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe
625					630					635					640
Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val
				645					650					655	
Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro
			660					665					670		
Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys
		675					680					685			
Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser
	690					695					700				
Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr
705					710					715					720
Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly
				725					730					735	
Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu
			740					745					750		
Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr
		755					760					765			
Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly
	770					775					780				
Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro
785					790					795					800
Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu
				805					810					815	
Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser
			820					825					830		
Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro
		835					840					845			
Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu
	850					855					860				
Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro
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Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala		
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<212> PRT

<213> Unknown

<220>

<223> VP 113

<400> 338

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			20				25						30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90						95

Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe
			100					105					110		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
		115					120					125			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
	130					135					140				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
	145				150				155					160	
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
			165						170					175	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
		180						185					190		
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
	195					200						205			
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
	210					215					220				
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
	225				230				235					240	
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
			245					250						255	
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Gly	Pro	Gln	Ile	Gly	Gln
		260						265					270		
Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	Pro
	275					280					285				
Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr	Gly
	290				295					300					
Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	Met
	305				310				315					320	
Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala
			325					330					335		
Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser
		340						345					350		
Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys
	355					360					365				
Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln
	370				375					380					
Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala
	385				390					395				400	
Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile
			405					410					415		
Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val
		420					425					430			
Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn
	435					440					445				
Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr
	450				455					460					
Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu
	465				470				475					480	
Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp
			485					490					495		
Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val
		500					505					510			
Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln
	515					520					525				
Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr
	530				535					540					
Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser
	545				550				555					560	
Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val
			565					570					575		
Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val
		580					585					590			
Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val
	595				600						605				
Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg

610	615	620
Thr Ala Gly Asn Lys Ile Pro Val Thr Phe Met Ala Asn Ala Tyr Leu		
625	630	635
Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu Lys Glu		640
	645	650
Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro Gln Phe Lys Arg Asn Lys		655
	660	665
Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys Val Glu Glu Pro Lys Thr		670
	675	680
Ser Glu Lys Val Glu Lys Glu Lys Leu Ser Glu Thr Gly Asn Ser Thr		685
	690	695
Ser Asn Ser Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val Gln Glu		700
705	710	715
Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn Val		720
	725	730
Leu Phe Asn Met Asp Gly Thr Ile Glu Leu Tyr Leu Pro Ser Gly Glu		735
	740	745
Val Ile Lys Lys Asn Met Ala Asp Phe Thr Gly Glu Ala Pro Gln Gly		750
	755	760
Asn Gly Glu Asn Lys Pro Ser Glu Asn Gly Lys Val Ser Thr Gly Thr		765
	770	775
Val Glu Asn Gln Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro Glu		780
785	790	795
Ala Pro Asn Glu Lys Pro Val Lys Pro Glu Asn Ser Thr Asp Asn Gly		800
	805	810
Met Leu Asn Pro Glu Gly Asn Val Gly Ser Asp Pro Met Leu Asp Pro		815
	820	825
Ala Leu Glu Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu Glu		830
	835	840
Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe Asn		845
	850	855
Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys		860
865	870	875
Lys Asn Leu Ser Asp Phe Ile Ala		880
	885	

<210> 339

<211> 900

<212> PRT

<213> Unknown

<220>

<223> VP 114

<400> 339

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Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile	10
	15
	20
Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr	25
	30
	35
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser	40
	45
	50
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys	55
65	60
	65
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr	70
	75
	80
	85
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp Ser	90
	95
	100
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala	105
	110
	115
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr	120
	125
	130
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp	135
	140

145					150					155				160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser
				165										175
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu
			180											190
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu
		195					200					205		Thr
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly
		210				215					220			Thr
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys
225					230						235			240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu
				245					250					255
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile
			260						265				270	Gln
Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala
		275					280					285		Thr
Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys
	290					295					300			His
Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu
305					310					315				320
Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr
			325						330					335
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr
			340					345				350		Ser
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro
	355						360					365		Gly
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys
	370					375					380			Ile
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val
385					390					395				400
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His
				405					410					415
Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser
		420						425					430	His
Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys
	435						440				445			Glu
Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn
	450					455					460			Leu
Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn
465					470					475				Gly
Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys
				485					490					495
Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val
		500						505					510	Leu
Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile
	515						520					525		Ala
Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys
	530					535					540			Tyr
Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr
545					550					555				Phe
Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile
				565					570					575
Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln
			580					585					590	Phe
Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu
	595						600					605		Phe
His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile
	610					615					620			Lys
Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly
625					630					635				Asn
Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln
				645					650					Ser
Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr
			660					665					670	Asp

Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn
	675						680					685			
Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val
	690					695					700				
Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr
705				710					715					720	
Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys
			725					730						735	
Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met
			740					745					750		
Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys
		755					760					765			
Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn
	770					775					780				
Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln
785				790					795					800	
Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu
			805					810						815	
Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro
		820						825					830		
Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu
		835					840					845			
Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala
	850					855					860				
Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr
865				870						875				880	
Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser
				885					890					895	
Asp	Phe	Ile	Ala												
			900												

<210> 340

<211> 894

<212> PRT

<213> Unknown

<220>

<223> VP 115

<400> 340

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
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Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65				70						75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	Ser
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
		130				135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185						190	

Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
		210				215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245						250				255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265					270		
Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr
		275					280					285			
Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His
		290				295					300				
Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp
305					310					315					320
Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu
				325					330					335	
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser
			340					345					350		
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly
		355					360					365			
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile
		370				375					380				
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val
385					390					395					400
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	Glu
				405					410					415	
His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe
			420				425					430			
Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr
		435					440					445			
Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe
		450				455					460				
Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe
465					470					475					480
Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val
				485					490					495	
Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys
			500				505					510			
Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln
		515					520					525			
Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp
		530				535					540				
Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu
545					550					555					560
Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly
				565					570					575	
Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr
			580					585					590		
Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu
		595					600					605			
Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu
		610				615					620				
Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe
625					630					635					640
Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val
				645					650					655	
Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro
			660					665					670		
Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys
		675					680					685			
Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser
		690				695					700				
Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr

705					710					715					720
Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly
				725					730					735	
Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu
			740					745					750		
Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr
		755				760					765				
Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly
	770				775					780					
Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro
785				790					795						800
Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu
			805					810						815	
Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser
			820					825					830		
Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro
		835					840					845			
Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu
	850				855						860				
Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro
865				870					875						880
Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala		
			885					890							

<210> 341

<211> 900

<212> PRT

<213> Unknown

<220>

<223> VP 116

<400> 341

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
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Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20				25					30			
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55				60					
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65				70					75					80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
			85					90					95		
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	His
			100					105					110		
Tyr	Ser	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120				125				
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
			165					170					175		
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
		180					185						190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
	195						200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225				230					235					240	
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val

[illegible]

Asn Met Ala Asp Phe Thr Gly Glu Ala Pro Gln Gly Asn Gly Glu Asn
 770 775 780
 Lys Pro Ser Glu Asn Gly Lys Val Ser Thr Gly Thr Val Glu Asn Gln
 785 790 795 800
 Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro Glu Ala Pro Asn Glu
 805 810 815
 Lys Pro Val Lys Pro Glu Asn Ser Thr Asp Asn Gly Met Leu Asn Pro
 820 825 830
 Glu Gly Asn Val Gly Ser Asp Pro Met Leu Asp Pro Ala Leu Glu Glu
 835 840 845
 Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu Glu Lys Phe Thr Ala
 850 855 860
 Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe Asn Met Asp Gly Thr
 865 870 875 880
 Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Leu Ser
 885 890 895
 Asp Phe Ile Ala
 900

<210> 342

<211> 894

<212> PRT

<213> Unknown

<220>

<223> VP 117 <400> 342

Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
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 Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
 20 25 30
 Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
 35 40 45
 Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
 50 55 60
 Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
 65 70 75 80
 Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
 85 90 95
 Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp His
 100 105 110
 Tyr Ser Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
 115 120 125
 Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
 130 135 140
 Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
 145 150 155 160
 Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
 165 170 175
 Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
 180 185 190
 Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
 195 200 205
 Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
 210 215 220
 Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
 225 230 235 240
 Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
 245 250 255
 Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
 260 265 270
 Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala Thr
 275 280 285
 Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys His
 290 295 300

Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp
305					310					315					320
Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu
				325					330						335
Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser
			340					345					350		
His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly
		355					360					365			
Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile
		370				375					380				
Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val
385					390					395					400
Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	Glu
				405					410					415	
His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe
			420					425					430		
Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr
		435					440					445			
Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe
450						455					460				
Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe
465					470					475					480
Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val
				485					490					495	
Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys
			500					505					510		
Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln
		515					520					525			
Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp
	530				535						540				
Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu
545					550					555					560
Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly
				565					570					575	
Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr
			580					585					590		
Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu
		595					600					605			
Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu
	610					615					620				
Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe
625					630					635					640
Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val
				645					650					655	
Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro
		660						665					670		
Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys
		675					680					685			
Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser
	690					695					700				
Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr
705					710					715					720
Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly
				725					730					735	
Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu
			740					745					750		
Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr
		755					760					765			
Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly
	770				775						780				
Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro
785					790					795					800
Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu
				805					810					815	
Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser

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Ser Asp Phe Ile Ala
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<212> PRT

<213> Unknown

<220>

<223> VP 120

<400> 344

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Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp His
100 105 110
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
115 120 125
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
130 135 140
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
145 150 155 160
Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
165 170 175
Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
180 185 190
Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
195 200 205
Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
210 215 220
Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
225 230 235 240
Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
245 250 255
Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
260 265 270
Ser Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala
275 280 285
Thr Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys
290 295 300
His Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu
305 310 315 320
Asp Glu Ser Gly Phe Val Met Ser Tyr Phe Phe Lys Lys Asp Leu Thr
325 330 335
Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr
340 345 350
Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro
355 360 365
Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys
370 375 380
Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val
385 390 395 400

Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	
				405					410					415		
Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	
			420					425					430			
Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	
		435					440					445				
Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	
	450					455					460					
Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	
465					470					475					480	
Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	
			485						490					495		
Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	
		500						505					510			
Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	
	515						520					525				
Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	
	530					535					540					
Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	
545					550					555					560	
Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	
			565						570					575		
Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	
		580					585						590			
Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	
	595						600					605				
Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	
	610					615					620					
Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	
625					630					635					640	
Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	
			645						650					655		
Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	
		660					665						670			
Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	
	675						680					685				
Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	
	690					695					700					
Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	
705				710						715					720	
Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	
		725							730				735			
Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	
		740						745					750			
Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	
	755						760					765				
Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	
	770					775					780					
Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	
785				790						795					800	
Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	
			805						810					815		
Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	
		820					825						830			
Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	
	835						840					845				
Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	
	850					855					860					
Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	
865				870						875					880	
Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala		
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35 40 45
Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
50 55 60
Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
65 70 75 80
Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
85 90 95
Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp Ser
100 105 110
Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
115 120 125
Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
130 135 140
Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
145 150 155 160
Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
165 170 175
Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
180 185 190
Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
195 200 205
Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
210 215 220
Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
225 230 235 240
Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
245 250 255
Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
260 265 270
Ser Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala
275 280 285
Thr Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys
290 295 300
His Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu
305 310 315 320
Asp Glu Ser Gly Phe Val Met Ser Tyr Phe Phe Lys Lys Asp Leu Thr
325 330 335
Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr
340 345 350
Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro
355 360 365
Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys
370 375 380
Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val
385 390 395 400
Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His Gly Asp His His
405 410 415
His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly Ile Gly His Ser
420 425 430
His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly Val Ala Lys Lys
435 440 445
Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr Asn Val Val Asn

450	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn
465	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys
				485	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	
			500	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	
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Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	
530						535					540					
Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	
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Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	
				565					570						575	
Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	
				580				585					590			
Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	
		595					600					605				
Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	
610						615					620					
Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	
625					630					635					640	
Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	
				645					650					655		
Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	
			660					665					670			
Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	
		675					680					685				
Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	
690						695				700						
Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	
705					710					715					720	
Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	
				725					730					735		
Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	
		740						745					750			
Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	
		755					760					765				
Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	
770						775					780					
Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	
785					790					795					800	
Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	
				805					810						815	
Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	
		820						825					830			
Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	
		835					840					845				
Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	
	850					855					860					
Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	
865					870					875					880	
Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	
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Ser	Asp	Phe	Ile	Ala												
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<211> 895

<212> PRT

<213> Unknown

<220>

<223> VP 122

<400> 346

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			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
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Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75				80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	Ser
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
	130					135					140				
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
145					150					155					160
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
				165					170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
	195						200					205			
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
	210					215					220				
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
225					230					235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
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Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
		260						265				270			
Ser	Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala
	275						280					285			
Thr	Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys
	290					295					300				
His	Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu
305					310					315					320
Asp	Glu	Ser	Gly	Phe	Val	Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr
			325						330					335	
Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr
		340						345					350		
Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro
		355					360					365			
Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys
	370					375					380				
Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val
385					390					395					400
Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp
			405						410					415	
Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu
			420					425					430		
Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr
		435					440					445			
Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr
	450					455					460				
Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser
465					470					475					480
Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu
				485					490					495	

Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
	35						40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50					55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe
			100					105					110		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
	115					120						125			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
	130					135					140				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
145					150					155					160
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
				165					170					175	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
			180					185					190		
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
	195						200						205		
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
	210					215						220			
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
225					230					235					240
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
				245					250					255	
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Ser	Gly	Pro	Gln	Ile	Gly
			260					265					270		
Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu
		275					280					285			
Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr
	290					295					300				
Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val
305					310					315					320
Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala
				325					330					335	
Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp
			340						345				350		
Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met
			355				360					365			
Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys
	370					375					380				
Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn
385					390					395					400
Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp
				405					410					415	
Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu
			420					425					430		
Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr
		435					440					445			
Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr
	450					455					460				
Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser
465					470					475					480
Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu
				485					490					495	
Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly
			500					505					510		
Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp
		515					520					525			
Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys
	530					535					540				
Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser

545	Leu	Ala	Tyr	Lys	Met	550	Ala	Ser	Gln	Thr	Ile	555	Phe	Tyr	Pro	Phe	His	560	Ala
	Gly	Asp	Thr	Tyr	565	Leu	Arg	Val	Asn	Pro	570	Gln	Phe	Ala	Val	Pro	575	Lys	Gly
	Thr	Asp	Ala	Leu	580	Val	Arg	Val	Phe	585	Asp	Glu	Phe	His	Gly	590	Asn	Ala	Tyr
	Leu	Glu	Asn	Asn	595	Tyr	Lys	Val	Gly	600	Glu	Ile	Lys	Leu	Pro	605	Ile	Pro	Lys
	Leu	Asn	Gln	Gly	610	Thr	Thr	Arg	Thr	615	Ala	Gly	Asn	Lys	Ile	Pro	620	Val	Thr
	625	Phe	Met	Ala	630	Asn	Ala	Tyr	Leu	635	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	640
	Val	Pro	Ile	Leu	645	Glu	Lys	Glu	Asn	650	Gln	Thr	Asp	Lys	Pro	Ser	Ile	655	Leu
	Pro	Gln	Phe	Lys	660	Arg	Asn	Lys	Ala	665	Gln	Glu	Asn	Ser	Lys	Leu	Asp	670	Glu
	Lys	Val	Glu	Glu	675	Pro	Lys	Thr	Ser	680	Glu	Lys	Val	Glu	Lys	Glu	Lys	685	Leu
	Ser	Glu	Thr	Gly	690	Asn	Ser	Thr	Ser	695	Asn	Ser	Thr	Leu	Glu	Glu	Val	700	Pro
	705	Thr	Val	Asp	710	Pro	Val	Gln	Glu	715	Lys	Val	Ala	Lys	Phe	Ala	Glu	720	Tyr
	Gly	Met	Lys	Leu	725	Glu	Asn	Val	Leu	730	Phe	Asn	Met	Asp	Gly	Thr	Ile	735	Glu
	Leu	Tyr	Leu	Pro	740	Ser	Gly	Glu	Val	745	Ile	Lys	Lys	Asn	Met	Ala	Asp	750	Phe
	Thr	Gly	Glu	Ala	755	Pro	Gln	Gly	Asn	760	Gly	Glu	Asn	Lys	Pro	Ser	Glu	765	Asn
	Gly	Lys	Val	Ser	770	Thr	Gly	Thr	Val	775	Glu	Asn	Gln	Pro	Thr	Glu	Asn	780	Lys
	785	Pro	Ala	Asp	790	Ser	Leu	Pro	Glu	795	Ala	Pro	Asn	Glu	Lys	Pro	Val	800	Pro
	Glu	Asn	Ser	Thr	805	Asp	Asn	Gly	Met	810	Leu	Asn	Pro	Glu	Gly	Asn	Val	815	Gly
	Ser	Asp	Pro	Met	820	Leu	Asp	Pro	Ala	825	Leu	Glu	Glu	Ala	Pro	Ala	Val	830	Asp
	Pro	Val	Gln	Glu	835	Lys	Leu	Glu	Lys	840	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	845	Gly
	Leu	Asp	Ser	Val	850	Ile	Phe	Asn	Met	855	Asp	Gly	Thr	Ile	Glu	Leu	Arg	860	Leu
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<210> 348

<211> 889

<212> PRT

<213> Unknown

<220>

<223> VP 124

<400> 348

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			20				25					30			
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35				40					45				
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
	50				55					60					
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
65				70				75						80	
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr

				85					90					95		
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Asn	Ile	Lys	Phe	
			100					105					110			
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu	
		115					120					125				
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala	
	130					135					140					
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp	
145					150				155						160	
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser	
				165					170						175	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu	
			180					185					190			
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp	
		195				200						205				
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn	
	210					215					220					
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr	
225					230				235						240	
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu	
				245				250						255		
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Ser	Gly	Pro	Gln	Ile	Gly	
			260					265					270			
Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	
		275					280					285				
Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Asp	Gly	Tyr		
	290					295					300					
Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	
305					310					315					320	
Met	Ser	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	
				325					330					335		
Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	
			340					345					350			
Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	
		355					360				365					
Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	
	370					375					380					
Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	
385					390					395						
Ala	Ile	Ile	Tyr	Pro	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	
				405					410					415		
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	
			420					425	</							

Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
610						615					620				
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
625					630					635					640
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
				645					650					655	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			660					665					670		
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		675					680					685			
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	690					695					700				
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
705					710					715					720
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
				725					730					735	
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			740					745					750		
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
		755					760					765			
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	770					775					780				
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
785					790					795					800
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
				805					810					815	
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
			820					825					830		
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
		835					840					845			
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
	850					855					860				
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
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Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
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<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 42

<400> 349

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			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	Ser	Gly	Asp	Ser	Asn	Ser	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
	115						120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130						135					140			

Gly	Asp	Gly	Thr	Ser	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170						175
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200				205				
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265						270	
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
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Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
		515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
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Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
				565					570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
			580					585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
		595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
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Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
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<211> 633
<212> PRT
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<220>
<223> NEW 49

<400> 350
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Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp Glu
35 40 45
Ser Gly Phe Val Met Ser Ser Gly Asp His Asn His Tyr Phe Phe Lys
50 55 60
Lys Asp Leu Thr Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu
65 70 75 80
Glu Val Lys Thr Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu
85 90 95
Gln Asp Tyr Pro Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys
100 105 110
Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg
115 120 125
Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His
130 135 140
Gly Asp His His His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly
145 150 155 160
Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly
165 170 175
Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr
180 185 190
Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe Asn Asn Gln Asn Phe
195 200 205
Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Pro Glu
210 215 220
Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro
225 230 235 240
Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly
245 250 255
Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly
260 265 270
Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp Tyr Pro Glu Val Ser
275 280 285
Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu Ala Tyr Lys Met Ala
290 295 300
Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly Asp Thr Tyr Leu Arg
305 310 315 320
Val Asn Pro Gln Phe Ala Val Pro Lys Gly Thr Asp Ala Leu Val Arg
325 330 335
Val Phe Asp Glu Phe His Gly Asn Ala Tyr Leu Glu Asn Asn Tyr Lys
340 345 350
Val Gly Glu Ile Lys Leu Pro Ile Pro Lys Leu Asn Gln Gly Thr Thr
355 360 365
Arg Thr Ala Gly Asn Lys Ile Pro Val Thr Phe Met Ala Asn Ala Tyr
370 375 380
Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu Lys
385 390 395 400
Glu Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro Gln Phe Lys Arg Asn
405 410 415
Lys Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys Val Glu Glu Pro Lys
420 425 430
Thr Ser Glu Lys Val Glu Lys Glu Lys Leu Ser Glu Thr Gly Asn Ser
435 440 445
Thr Ser Asn Ser Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val Gln

450	Glu Lys Val Ala Lys Phe	455	Ala Glu Ser Tyr Gly	460	Met Lys Leu Glu Asn
465	Val Leu Phe Asn Met Asp	470	Gly Thr Ile Glu Leu Tyr	475	Leu Pro Ser Gly
		485	Ala Asp Phe Thr Gly	490	Glu Ala Pro Gln
	500		505		510
Gly Asn Gly	Glu Asn Lys Pro Ser	Glu Asn Gly	Lys Val Ser Thr Gly		
	515		520		525
Thr Val Glu	Asn Gln Pro Thr Glu	Asn Lys Pro Ala Asp	Ser Leu Pro		
	530		535		540
Glu Ala Pro	Asn Glu Lys Pro Val Lys	Pro Glu Asn Ser Thr Asp	Asn		
545		550		555	560
Gly Met Leu	Asn Pro Glu Gly Asn Val Gly	Ser Asp Pro Met Leu Asp			
	565		570		575
Pro Ala Leu	Glu Glu Ala Pro Ala Val Asp	Pro Val Gln Glu Lys Leu			
	580		585		590
Glu Lys Phe	Thr Ala Ser Tyr Gly Leu Gly	Leu Asp Ser Val Ile Phe			
	595		600		605
Asn Met Asp	Gly Thr Ile Glu Leu Arg Leu Pro	Ser Gly Glu Val Ile			
	610		615		620
Lys Lys Asn	Leu Ser Asp Phe Ile Ala				
625		630			

<210> 351

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 50

<400> 351

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20 25 30	
Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp Glu	
35 40 45	
Ser Gly Phe Val Met Ser Ser Gly Asp Ser Asn His Tyr Phe Phe Lys	
50 55 60	
Lys Asp Leu Thr Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu	
65 70 75 80	
Glu Val Lys Thr Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu	
85 90 95	
Gln Asp Tyr Pro Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys	
100 105 110	
Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg	
115 120 125	
Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His	
130 135 140	
Gly Asp His His His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly	
145 150 155 160	
Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly	
165 170 175	
Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr	
180 185 190	
Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe Asn Asn Gln Asn Phe	
195 200 205	
Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Pro Glu	
210 215 220	
Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro	
225 230 235 240	
Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly	

Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			325						330						335
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355						360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			405						410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		420						425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	435						440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			485						490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
		500						505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	515						520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
			565						570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
		580						585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
	595						600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
625					630										

<210> 352

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 51

<400> 352

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu

Ser	Gly	Phe	Val	Met	Ser	Ser	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys	
Lys	50					55					60					
65	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	
Glu	Val	Lys	Thr	Ser	85	Asn	Gly	Leu	Asp	75	Ser	Leu	Ser	Ser	His	80
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser	
Gly	130					135					140					
145	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	
385					390					395					400	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	
545					550					555					560	

Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	
		355					360					365				
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	
		370				375					380					
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	
385					390					395					400	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	
			405						410					415		
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	
		420						425					430			
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	
		435					440					445				
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	
		450				455					460					
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	
465				470						475					480	
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	
			485						490					495		
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	
		500					505					510				
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	
		515				520						525				
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	
		530			535						540					
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	
545				550						555					560	
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	
			565						570					575		
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	
		580					585					590				
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	
		595					600					605				
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	
		610				615					620					
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala								
625					630											

<210> 354

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 53

<400> 354

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			20					25					30			
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	
		35				40						45				
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys	
	50					55					60					
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	
65				70						75					80	
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	
			85					90						95		
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	
		100						105					110			
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	
		115					120					125				
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser	
		130				135					140					

Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170						175
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200				205				
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			245						250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265						270	
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	275						280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	435						440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	515						520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
				565					570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
			580					585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
		595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
625					630										

<211> 633
 <212> PRT
 <213> Unknown

<220>
 <223> NEW 54

<400> 355

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35				40						45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65				70						75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
			85					90						95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165				170						175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225				230						235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			245						250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260				265						270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			325						330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340					345						350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			405						410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln

450		455		460
Glu Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn				
465		470		475
Val Leu Phe Asn Met Asp Gly Thr Ile Glu Leu Tyr Leu Pro Ser Gly				480
		485		490
Glu Val Ile Lys Lys Asn Met Ala Asp Phe Thr Gly Glu Ala Pro Gln				495
		500		505
Gly Asn Gly Glu Asn Lys Pro Ser Glu Asn Gly Lys Val Ser Thr Gly				510
		515		520
Thr Val Glu Asn Gln Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro				525
		530		535
Glu Ala Pro Asn Glu Lys Pro Val Lys Pro Glu Asn Ser Thr Asp Asn				540
545		550		555
Gly Met Leu Asn Pro Glu Gly Asn Val Gly Ser Asp Pro Met Leu Asp				560
		565		570
Pro Ala Leu Glu Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu				575
		580		585
Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe				590
		595		600
Asn Met Asp Gly Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile				605
		610		615
Lys Lys Asn Leu Ser Asp Phe Ile Ala				620
625		630		

<210> 356

<211> 569

<212> PRT

<213> Unknown

<220>

<223> NEW 55

<400> 356

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Glu Val Lys Thr Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu				15
		20		25
Gln Asp Tyr Pro Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys				30
		35		40
Ile Glu Glu Lys Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg				45
		50		55
Glu Ser Ile Val Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His				60
65		70		75
Gly Asp Gly His His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly				80
		85		90
Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly				95
		100		105
Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr				110
		115		120
Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe Asn Asn Gln Asn Phe				125
		130		135
Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Pro Glu				140
145		150		155
Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro				160
		165		170
Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly				175
		180		185
Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly				190
		195		200
Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp Tyr Pro Glu Val Ser				205
		210		215
Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu Ala Tyr Lys Met Ala				220
225		230		235
Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly Asp Thr Tyr Leu Arg				240

Val	Asn	Pro	Gln	245	Phe	Ala	Val	Pro	Lys	250	Gly	Thr	Asp	Ala	Leu	255	Val	Arg
			260						265						270			
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys			
		275					280						285					
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr			
	290					295					300							
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr			
305				310						315					320			
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys			
			325						330					335				
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn			
		340						345					350					
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys			
	355						360					365						
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser			
	370					375					380							
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln			
385					390					395					400			
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn			
			405						410					415				
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly			
		420						425					430					
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln			
	435						440					445						
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly			
	450					455					460							
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro			
465					470					475					480			
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn			
			485						490					495				
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp			
		500						505					510					
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu			
	515						520					525						
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe			
	530					535					540							
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile			
545					550					555					560			
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala										
				565														

<210> 357

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 56

<400> 357

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
	35						40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75				80	
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys

Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165				170						175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260				265						270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340				345						350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455			</						

Lys Lys Asn Leu Ser Asp Phe Ile Ala
625 630

<210> 358

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 56

<400> 358

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65				70						75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
	195						200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225				230						235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		260					265						270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	275						280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340					345						350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355						360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	

Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
		515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
				565					570					575	
Pro	Ala	Leu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	
			580				585					590			
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
		595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
625					630										

<210> 359

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 56

<400> 359

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
		130				135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200						205		

Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215				220					
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		260						265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	275						280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			325						330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340						345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355						360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			405						410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		420						425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	435						440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			485						490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
		500						505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	515						520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
			565						570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
		580						585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
	595						600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
625					630										

<210> 360

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 57

<400> 360

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	Ser	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215						220			
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			245						250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340						345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		420						425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly

		515						520					525				
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro		
	530						535				540						
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn		
545					550					555					560		
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp		
			565						570					575			
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu		
		580						585					590				
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe		
	595						600					605					
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile		
	610					615					620						
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala									
625					630												

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<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 63

<400> 361

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			20					25					30				
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu		
	35					40						45					
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys		
	50				55					60							
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu		
65				70				75						80			
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu		
			85					90					95				
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys		
			100					105					110				
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg		
	115					120						125					
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His		
	130				135					140							
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly		
145				150					155					160			
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly		
			165					170					175				
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr		
		180					185					190					
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe		
	195						200					205					
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu		
	210				215				220								
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro		
225				230					235					240			
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly		
			245					250					255				
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly		
		260					265					270					
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser		
	275					280					285						
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala		
	290				295						300						
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg		

305					310					315				320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val Arg
				325					330					335
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr Lys
			340					345					350	
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr Thr
		355				360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala Tyr
	370				375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu Lys
385					390				395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg Asn
			405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro Lys
		420					425						430	
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn Ser
	435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val Gln
	450				455				460					
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu Asn
465				470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser Gly
			485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro Gln
		500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr Gly
	515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu Pro
	530				535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp Asn
545				550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu Asp
			565					570					575	
Pro	Ala	Leu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
	580					585					590			
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile Phe
	595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val Ile
	610				615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala						
625					630									

<210> 362

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 64

<400> 362

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	Ser	Tyr	Phe	Phe	Lys
	50				55					60					
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70				75					80	
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85				90						95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys

			100					105					110			
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	
		115					120					125				
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	
		130				135					140					
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	
145					150					155					160	
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	
				165					170					175		
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	
			180					185					190			
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	
		195				200					205					
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	
		210				215					220					
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	
225				230						235					240	
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	
			245						250				255			
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	
			260					265					270			
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	
		275					280					285				
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	
		290				295					300					
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	
305				310						315					320	
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	
			325						330				335			
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	
			340					345					350			
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	
		355					360					365				
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	
		370				375					380					
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	
385				390						395					400	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	
			405						410				415			
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	
			420					425					430			
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	
		435					440									

Lys Lys Asn Leu Ser Asp Phe Ile Ala
625 630

<210> 363

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 65

<400> 363

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His
		130				135					140				
Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
		210				215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	

Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
		450				455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
		515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
		530				535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
				565					570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
			580					585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
		595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
610					615						620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
625					630										

<210> 364

<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 66

<400> 364

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	Ser	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
	115						120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His
	130					135					140				
Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200						205		

Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		260					265						270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	275						280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			325						330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		340						345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355						360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385					390					395					400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			405						410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		420						425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	435						440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			485						490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
		500						505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	515						520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
			565						570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
		580						585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
	595						600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala							
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<211> 633

<212> PRT

<213> Unknown

<220>

<223> NEW 76

<400> 365

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			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	Ser	Tyr	Phe	Phe	Lys
	50					55				60					
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65				70						75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
			85						90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170						175
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210				215							220			
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225				230					235						240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			245						250				255		
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
				325					330				335		
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
		355					360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
385				390					395						400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410				415		
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470				475						480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
				485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly

305					310				315				320
Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu
				325					330				335
Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile
			340					345					350
Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly
		355					360					365	
Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln
	370					375					380		
Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr
385					390					395			400
Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu
			405						410				415
Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys
			420					425					430
Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser
		435					440					445	
Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala
	450					455					460		
Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn
465				470					475				480
Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys
			485						490				495
Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu
		500						505				510	
Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn
	515						520					525	
Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn
	530				535						540		
Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn
545					550				555				560
Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu
			565						570				575
Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr
		580					585					590	
Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly
	595						600					605	
Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu
	610					615					620		
Phe	Ile	Ala											
625													

<210> 367

<211> 627

<212> PRT

<213> Unknown

<220>

<223> NEW 106

<400> 367

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			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70				75					80	
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys

Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	
		115					120					125				
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ala	
	130					135					140					
Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	
145					150					155					160	
Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	
				165					170					175		
Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	
			180					185					190			
Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	
		195					200				205					
Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	
	210					215					220					
Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	
225					230					235					240	
Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	
				245					250					255		
Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	
			260					265					270			
Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	
		275					280					285				
Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	
	290					295					300					
Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	
305					310					315					320	
Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	
			325						330					335		
Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	
			340					345					350			
Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	
		355					360					365				
Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	
	370					375					380					
Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	
385					390					395				400		
Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	
			405						410					415		
Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	
			420					425					430			
Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	
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Phe Ile Ala
625

<210> 368
<211> 621
<212> PRT
<213> Unknown

<220>
<223> NEW 107

<400> 368
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Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp Glu
35 40 45
Ser Gly Phe Val Met Ser Tyr Phe Phe Lys Lys Asp Leu Thr Glu Glu
50 55 60
Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr Ser His
65 70 75 80
Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro Gly Asn
85 90 95
Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys Ile Ala
100 105 110
Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val Val Asn
115 120 125
Lys Glu Lys Asn Ala Ile Ile Tyr Pro Ala Asp Pro Ile Asp Glu His
130 135 140
Lys Pro Val Gly Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe Lys
145 150 155 160
Pro Glu Glu Gly Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr Gly
165 170 175
Glu Glu Leu Thr Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe Asn
180 185 190
Asn Gln Asn Phe Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe Ser
195 200 205
Phe Pro Pro Glu Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val Lys
210 215 220
Leu Ile Thr Pro Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys Val
225 230 235 240
Phe Gly Glu Gly Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln Pro
245 250 255
Tyr Leu Pro Gly Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp Tyr
260 265 270
Pro Glu Val Ser Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu Ala
275 280 285
Tyr Lys Met Ala Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly Asp
290 295 300
Thr Tyr Leu Arg Val Asn Pro Gln Phe Ala Val Pro Lys Gly Thr Asp
305 310 315 320
Ala Leu Val Arg Val Phe Asp Glu Phe His Gly Asn Ala Tyr Leu Glu
325 330 335
Asn Asn Tyr Lys Val Gly Glu Ile Lys Leu Pro Ile Pro Lys Leu Asn
340 345 350
Gln Gly Thr Thr Arg Thr Ala Gly Asn Lys Ile Pro Val Thr Phe Met
355 360 365
Ala Asn Ala Tyr Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val Pro
370 375 380
Ile Leu Glu Lys Glu Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro Gln
385 390 395 400
Phe Lys Arg Asn Lys Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys Val
405 410 415
Glu Glu Pro Lys Thr Ser Glu Lys Val Glu Lys Glu Lys Leu Ser Glu

			420					425				430				
Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	
		435					440					445				
Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	
	450					455					460					
Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	
465				470					475						480	
Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	
			485					490						495		
Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	
		500					505						510			
Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	
	515					520						525				
Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	
	530					535					540					
Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	
545				550					555						560	
Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	
			565					570						575		
Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	
		580					585						590			
Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	
	595					600						605				
Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala				
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<210> 369

<211> 906

<212> PRT

<213> Unknown

<220>

<223> VP 89

<400> 369

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	
			20					25					30			
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	
		35				40						45				
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys	
	50				55					60						
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	
65				70					75					80		
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	
			85					90						95		
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	
		100						105					110			
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	
	115					120						125				
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser	
	130					135					140					
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	
145				150					155					160		
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	
			165					170						175		
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	
		180						185					190			
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	
	195					200						205				
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	
	210					215						220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	

225	230	235	240
Asp Gly Lys Val	Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly		
	245	250	255
Val Gly Asn Ile	Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly		
	260	265	270
Gln Thr Phe Lys Tyr Thr Ile	Ala Ser Lys Asp Tyr Pro Glu Val Ser		
	275	280	285
Tyr Asp Gly Thr Phe Thr Val	Pro Thr Ser Leu Ala Tyr Lys Met Ala		
	290	295	300
Ser Gln Thr Ile Phe Tyr Pro	Phe His Ala Gly Asp Thr Tyr Leu Arg		
305	310	315	320
Val Asn Pro Gln Phe Ala Val	Pro Lys Gly Thr Asp Ala Leu Val Arg		
	325	330	335
Val Phe Asp Glu Phe His Gly	Asn Ala Tyr Leu Glu Asn Asn Tyr Lys		
	340	345	350
Val Gly Glu Ile Lys Leu Pro	Ile Pro Lys Leu Asn Gln Gly Thr Thr		
	355	360	365
Arg Thr Ala Gly Asn Lys Ile	Pro Val Thr Phe Met Ala Asn Ala Tyr		
	370	375	380
Leu Asp Asn Gln Ser Thr Tyr	Ile Val Glu Val Pro Ile Leu Glu Lys		
385	390	395	400
Glu Asn Gln Thr Asp Lys Pro	Ser Ile Leu Pro Gln Phe Lys Arg Asn		
	405	410	415
Lys Ala Gln Glu Asn Ser Lys	Leu Asp Glu Lys Val Glu Glu Pro Lys		
	420	425	430
Thr Ser Glu Lys Val Glu Lys	Glu Lys Leu Ser Glu Thr Gly Asn Ser		
	435	440	445
Thr Ser Asn Ser Thr Leu Glu	Glu Val Pro Thr Val Asp Pro Val Gln		
	450	455	460
Glu Lys Val Ala Lys Phe Ala	Glu Ser Tyr Gly Met Lys Leu Glu Asn		
465	470	475	480
Val Leu Phe Asn Met Asp Gly	Thr Ile Glu Leu Tyr Leu Pro Ser Gly		
	485	490	495
Glu Val Ile Lys Lys Asn Met	Ala Asp Phe Thr Gly Glu Ala Pro Gln		
	500	505	510
Gly Asn Gly Glu Asn Lys Pro	Ser Glu Asn Gly Lys Val Ser Thr Gly		
	515	520	525
Thr Val Glu Asn Gln Pro Thr	Glu Asn Lys Pro Ala Asp Ser Leu Pro		
	530	535	540
Glu Ala Pro Asn Glu Lys Pro	Val Lys Pro Glu Asn Ser Thr Asp Asn		
545	550	555	560
Gly Met Leu Asn Pro Glu Gly	Asn Val Gly Ser Asp Pro Met Leu Asp		
	565	570	575
Pro Ala Leu Glu Ala Pro Ala	Val Asp Pro Val Gln Glu Lys Leu		
	580	585	590
Glu Lys Phe Thr Ala Ser Tyr	Gly Leu Gly Leu Asp Ser Val Ile Phe		
	595	600	605
Asn Met Asp Gly Thr Ile Glu	Leu Arg Leu Pro Ser Gly Glu Val Ile		
	610	615	620
Lys Lys Asn Leu Ser Asp Phe	Ile Ala Gly Pro Gln Ile Thr Tyr Thr		
625	630	635	640
Asp Asp Glu Ile Gln Val Ala	Lys Leu Ala Gly Lys Tyr Thr Thr Glu		
	645	650	655
Asp Gly Tyr Ile Phe Asp Thr	Ser Trp Ile Lys Lys Asp Ser Leu Ser		
	660	665	670
Glu Ala Glu Arg Ala Ala Ala	Gln Ala Tyr Ala Lys Glu Lys Gly Leu		
	675	680	685
Thr Pro Pro Ser Thr Asp His	Gln Asp Ser Gly Asn Thr Glu Ala Lys		
	690	695	700
Gly Ala Glu Ala Ile Tyr Asn	Arg Val Lys Ala Ala Lys Lys Val Pro		
705	710	715	720
Leu Asp Arg Met Pro Tyr Asn	Leu Gln Tyr Thr Val Glu Val Lys Asn		
	725	730	735
Gly Ser Leu Ile Ile Pro His	Tyr Asp His Tyr His Asn Ile Lys Phe		
	740	745	750

Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
		755					760					765			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
		770					775					780			
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
		785				790				795					800
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
				805					810					815	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
				820					825					830	
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
		835					840					845			
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
		850				855					860				
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
		865				870				875					880
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
				885					890						895
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln						
			900					905							

<210> 370

<211> 906

<212> PRT

<213> Unknown

<220>

<223> VP 90

<400> 370

Met	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala
1				5					10					15	
Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile
			20					25					30		
Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr
		35					40					45			
Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser
		50				55					60				
Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys
					70					75					80
Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr
				85					90					95	
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	His
			100					105					110		
Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala
		115					120					125			
Pro	Lys	Gly	Tyr	Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr
		130				135						140			
Val	Glu	Pro	Arg	Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp
		145			150					155				160	
Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu
			165						170					175	
Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn
			180					185					190		
Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr
		195					200						205		
Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr
		210				215						220			
Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser
				230						235					240
Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val
				245					250					255	
Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln
			260					265						270	

Gly	Pro	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr
		275					280					285			
Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His
		290					295					300			
Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp
305					310					315					320
Glu	Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe
				325					330					335	
Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu
			340						345					350	
Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His
		355						360					365		
Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys
		370					375					380			
Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys
385					390					395					400
Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro
				405					410					415	
Ser	Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val
			420					425					430		
Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu
		435						440					445		
Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu
		450				455					460				
Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn
465					470					475					480
Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro
				485					490					495	
Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr
			500					505					510		
Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu
		515						520					525		
Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro
		530				535					540				
Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val
545					550					555					560
Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met
				565					570					575	
Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu
			580					585					590		
Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val
		595					600					605			
Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr
		610				615					620				
Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr
625					630					635					640
Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala
				645					650					655	
Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu
			660					665					670		
Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg
		675					680						685		
Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro
		690				695					700				
Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn
705					710					715					720
Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val
				725					730					735	
Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu
			740					745					750		
Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser
		755					760					765			
Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro
		770				775					780				
Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr

785					790					795					800
Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu
				805					810					815	
Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp
				820					825					830	
Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu
		835					840					845			
Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys
	850					855					860				
Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile
865					870					875					880
Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val
				885					890					895	
Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala						
			900					905							

<210> 371

<211> 906

<212> PRT

<213> Unknown

<220>

<223> VP 91

<400> 371

Met	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro
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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	Ser	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65				70					75						80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
			85					90						95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
		115					120					125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135				140					
Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
				165					170					175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		195					200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
						215						220			
Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro		
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
				245					250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
			260					265					270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg

305					310					315				320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val Arg
				325					330					335
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr Lys
			340					345					350	
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr Thr
		355				360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala Tyr
	370				375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu Lys
385					390					395				400
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg Asn
			405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro Lys
		420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn Ser
	435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val Gln
	450				455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu Asn
465				470					475					480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser Gly
			485					490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro Gln
		500				505					510			
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr Gly
	515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu Pro
	530				535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp Asn
545				550					555					560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu Asp
			565					570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys Leu
		580					585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile Phe
	595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val Ile
	610				615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala	Gly	Pro	Gln	Ile	Thr	Tyr Thr
625				630					635					640
Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr Glu
			645					650					655	
Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile	Lys	Lys	Asp	Ser	Leu Ser
		660					665					670		
Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly Leu
	675				680					685				
Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala Lys
	690				695					700				
Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val Pro
705				710					715					720
Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys Asn
			725					730					735	
Gly	Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys Phe
		740					745					750		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser Leu
	755				760						765			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn Ala
	770				775					780				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro Asp
785				790					795					800
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu Ser
			805					810					815	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn Leu
			820				825						830	

Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His
		355					360					365			
Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys
		370					375					380			
Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys
385					390					395					400
Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro
				405					410					415	
Ser	Gly	Asp	Gly	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val
			420					425					430		
Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu
		435					440					445			
Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu
	450					455					460				
Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn
465					470					475					480
Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro
				485					490					495	
Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr
			500					505					510		
Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu
		515					520					525			
Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro
	530					535					540				
Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val
545					550					555					560
Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met
				565					570					575	
Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu
			580					585					590		
Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val
		595					600					605			
Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr
	610					615					620				
Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr
625					630					635					640
Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala
			645						650					655	
Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu
			660					665					670		
Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg
		675					680					685			
Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro
	690					695					700				
Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn
705					710					715					720
Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val
			725						730					735	
Gln	Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu
			740					745					750		
Asn	Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser
		755					760					765			
Gly	Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro
	770					775					780				
Gln	Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr
785					790					795					800
Gly	Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu
			805						810					815	
Pro	Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp
			820					825					830		
Asn	Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu
	835						840					845			
Asp	Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys
	850					855					860				
Leu	Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile

865		870		875		880									
Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val
			885						890					895	
Ile	Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala						
			900					905							

<210> 373

<211> 906

<212> PRT

<213> Unknown

<220>

<223> VP 93

<400> 373

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Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu
			20					25					30		
Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu
		35					40					45			
Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp	Ser	Asn	His	Tyr	Phe	Phe	Lys
	50					55					60				
Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu
65					70					75					80
Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
				85					90					95	
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
			100					105					110		
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
	115					120						125			
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	Ser
	130					135					140				
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
145					150					155					160
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
			165					170						175	
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
			180					185					190		
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
	195						200					205			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
	210					215					220				
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
225					230					235					240
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			245						250					255	
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		260					265						270		
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
		275					280					285			
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
	290					295					300				
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
305					310					315					320
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			325						330					335	
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
			340					345					350		
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	355						360					365			
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
	370					375					380				
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys

385					390					395				400	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
				405					410					415	
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
			420					425					430		
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
		435					440					445			
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
	450					455					460				
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
465					470				475						480
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			485						490					495	
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
			500					505					510		
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
		515					520					525			
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
	530					535					540				
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
545					550				555						560
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
			565						570					575	
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
			580					585					590		
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe
		595					600					605			
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile
	610					615					620				
Lys	Lys	Asn	Leu	Ser	Asp	Phe	Ile	Ala	Gly	Pro	Gln	Ile	Thr	Tyr	Thr
625					630				635						640
Asp	Asp	Glu	Ile	Gln	Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu
			645						650					655	
Asp	Gly	Tyr	Ile	Phe	Asp	Thr	Ser	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser
		660						665					670		
Glu	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu
	675						680					685			
Thr	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys
	690					695					700				
Gly	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro
705					710				715						720
Leu	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn
			725						730					735	
Gly	Ser	Leu	Ile	Ile	Pro	Ser	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe
		740						745					750		
Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu
	755					760						765			
Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg	Asn	Ala
	770					775					780				
Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp
785					790				795						800
Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser
			805						810					815	
Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu
			820					825					830		
Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp
		835					840					845			
Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg	Gln	Asn
	850					855					860				
Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr
865					870				875						880
Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu
			885						890					895	
Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln						
			900					905							

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 <212> PRT
 <213> Unknown

<220>
 <223> VP43S

<400> 374
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 1 5 10 15
 Ser Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala
 20 25 30
 Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His
 35 40 45
 Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn
 50 55 60
 Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn
 65 70 75 80
 Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His
 85 90 95
 Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu
 100 105 110
 Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val
 115 120 125
 Lys Tyr Tyr Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn
 130 135 140
 Lys Ala Asp Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu
 145 150 155 160
 Val Ser Glu Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala
 165 170 175
 Gly Leu Asn Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr
 180 185 190
 Glu Glu Thr Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile
 195 200 205
 Pro Gly Thr Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly
 210 215 220
 Leu Lys Ser Ser Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser
 225 230 235 240
 Ala Glu Val Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala
 245 250 255
 Pro Ile Gln

<210> 375
 <211> 268
 <212> PRT
 <213> Unknown

<220>
 <223> NEW 86

<400> 375
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 Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
 20 25 30
 Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
 35 40 45
 Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
 50 55 60
 Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
 65 70 75 80
 Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr

				85					90					95			
Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	Leu	Ile	Ile	Pro	Pro	Gly	Asn	Ile		
			100					105					110				
Lys	Phe	Glu	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr		
		115					120					125					
Ser	Leu	Glu	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	Pro	Arg		
	130					135					140						
Asn	Ala	Ser	Asp	His	Val	Arg	Lys	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys		
145				150					155						160		
Pro	Asp	Glu	Asp	Lys	Glu	His	Asp	Glu	Val	Ser	Glu	Pro	Thr	His	Pro		
			165					170						175			
Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp		
		180						185					190				
Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala		
	195					200						205					
Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro	Gly	Thr	Pro	Ser	Ile	Arg		
	210				215						220						
Gln	Asn	Ala	Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu		
225				230					235					240			
Gly	Thr	Lys	Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu		
			245					250					255				
Ala	Leu	Leu	Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln						
		260						265									

<210> 376
 <211> 999
 <212> PRT
 <213> Unknown

<220>
 <223> NEW 17

<221> VARIANT
 <222> (1)...(1)
 <223> Xaa = Methionine or nothing

<221> VARIANT
 <222> (430)...(430)
 <223> Xaa = Glycine or nothing

<221> VARIANT
 <222> (431)...(431)
 <223> Xaa = Proline or nothing

<400> 376

Xaa	Asp	Ile	Asp	Ser	Leu	Leu	Lys	Gln	Leu	Tyr	Lys	Leu	Pro	Leu	Ser		
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Gln	Arg	His	Val	Glu	Ser	Asp	Gly	Leu	Ile	Phe	Asp	Pro	Ala	Gln	Ile		
		20					25				30						
Thr	Ser	Arg	Thr	Ala	Arg	Gly	Val	Ala	Val	Pro	His	Gly	Asn	His	Tyr		
	35					40					45						
His	Phe	Ile	Pro	Tyr	Glu	Gln	Met	Ser	Glu	Leu	Glu	Lys	Arg	Ile	Ala		
	50				55				60								
Arg	Ile	Ile	Pro	Leu	Arg	Tyr	Arg	Ser	Asn	His	Trp	Val	Pro	Asp	Ser		
65				70				75					80				
Arg	Pro	Glu	Glu	Pro	Ser	Pro	Gln	Pro	Thr	Pro	Glu	Pro	Ser	Pro	Ser		
			85					90				95					
Pro	Gln	Pro	Ala	Pro	Asn	Pro	Gln	Pro	Ala	Pro	Ser	Asn	Pro	Ile	Asp		
		100					105					110					
Glu	Lys	Leu	Val	Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr	Val		
	115					120					125						
Phe	Glu	Glu	Asn	Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asn	Leu	Ser		
	130			135				140									
Ala	Glu	Thr	Ala	Ala	Gly	Ile	Asp	Ser	Lys	Leu	Ala	Lys	Gln	Glu	Ser		
145				150				155						160			

Leu	Ser	His	Lys	Leu	Gly	Ala	Lys	Lys	Thr	Asp	Leu	Pro	Ser	Ser	Asp
				165					170					175	
Arg	Glu	Phe	Tyr	Asn	Lys	Ala	Tyr	Asp	Leu	Leu	Ala	Arg	Ile	His	Gln
			180					185					190		
Asp	Leu	Leu	Asp	Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Ala	Leu	Asp
		195					200					205			
Asn	Leu	Leu	Glu	Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys	Leu
	210					215					220				
Val	Asp	Asp	Ile	Leu	Ala	Phe	Leu	Ala	Pro	Ile	Arg	His	Pro	Glu	Arg
225					230					235				240	
Leu	Gly	Lys	Pro	Asn	Ala	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln
				245					250					255	
Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe
			260					265					270		
Asp	Pro	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr	Pro
		275					280					285			
His	Met	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala
	290					295					300				
Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro
305					310					315				320	
Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala
				325					330					335	
Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp
			340					345					350		
Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly	Ser
		355					360					365			
Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp
	370					375					380				
Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Thr	Leu	Glu	Asp
385					390					395				400	
Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg	Pro
				405					410					415	
His	Ser	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Xaa	Xaa	Asp
			420					425					430		
Leu	Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val
		435					440					445			
Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp
	450					455					460				
Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu
465					470					475				480	
Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser
				485					490					495	
Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp
			500					505					510		
His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly
		515					520					525			
His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala
	530					535					540				
Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val
545					550					555				560	
Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu
				565					570					575	
Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu
			580					585					590		
Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly
		595					600					605			
Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly
	610						615				620				
Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr
625					630					635				640	
Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp
				645					650					655	
Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln
			660					665					670		
Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn

Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe
675	690					695					700				
Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly
705					710					715					720
Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr
				725					730					735	
Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp
			740					745					750		
Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn
		755					760					765			
Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala
	770					775					780				
Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser
785					790					795					800
Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser
				805					810					815	
Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys
			820					825					830		
Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu
	835						840					845			
Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val
	850					855					860				
Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn
865					870					875					880
Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val
				885					890					895	
Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala
			900					905					910		
Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met
	915						920					925			
Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala
	930					935					940				
Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys
945					950					955					960
Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met
				965					970					975	
Asp	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys
			980					985					990		
Asn	Leu	Ser	Asp	Phe	Ile	Ala									
	995														

<210> 377
 <211> 999
 <212> PRT
 <213> Unknown

<220>
 <223> NEW 20

<221> VARIANT
 <222> (1)...(1)
 <223> Xaa = Methionine or nothing

<221> VARIANT
 <222> (570)...(570)
 <223> Xaa = Glycine or nothing

<221> VARIANT
 <222> (571)...(571)
 <223> Xaa = Proline or nothing

<400> 377
 Xaa Asp Leu Thr Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu
 1 5 10 15

Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu
			20					25					30		
Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys
		35					40					45			
Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg
	50					55					60				
Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His
65					70					75					80
Gly	Asp	His	His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly
				85					90					95	
Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly
			100					105					110		
Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr
		115					120					125			
Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe
		130					135					140			
Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu
145					150					155					160
Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro
				165					170					175	
Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly
			180						185				190		
Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly
		195					200					205			
Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser
	210					215					220				
Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala
225					230					235					240
Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg
				245					250					255	
Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg
			260					265					270		
Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys
		275					280					285			
Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr
	290					295					300				
Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr
305					310					315					320
Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys
				325					330					335	
Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn
			340					345					350		
Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys
		355					360					365			
Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser
	370					375					380				
Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln
385					390					395					400
Glu	Lys	Val	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn
				405					410					415	
Val	Leu	Phe	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly
			420					425					430		
Glu	Val	Ile	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln
		435					440					445			
Gly	Asn	Gly	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly
	450					455					460				
Thr	Val	Glu	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro
465					470					475					480
Glu	Ala	Pro	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn
			485					490					495		
Gly	Met	Leu	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp
		500						505					510		
Pro	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu
		515					520					525			
Glu	Lys	Phe	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe

530	Asn Met Asp Gly Thr Ile	535	Glu Leu Arg Leu Pro	540	Ser Gly Glu Val Ile
545	Lys Lys Asn Leu Ser Asp Phe Ile Ala Xaa Xaa Asp Ile Asp Ser Leu	550		555	
		565		570	
	Leu Lys Gln Leu Tyr Lys Leu Pro Leu Ser Gln Arg His Val Glu Ser	580		585	
		595		600	
	Asp Gly Leu Ile Phe Asp Pro Ala Gln Ile Thr Ser Arg Thr Ala Arg	605		610	
		615		620	
	Gly Val Ala Val Pro His Gly Asn His Tyr His Phe Ile Pro Tyr Glu	625		630	
		635		640	
	Gln Met Ser Glu Leu Glu Lys Arg Ile Ala Arg Ile Ile Pro Leu Arg	645		650	
		655		660	
	Tyr Arg Ser Asn His Trp Val Pro Asp Ser Arg Pro Glu Glu Pro Ser	665		670	
		675		680	
	Pro Gln Pro Thr Pro Glu Pro Ser Pro Ser Pro Gln Pro Ala Pro Asn	685		690	
		695		700	
	Pro Gln Pro Ala Pro Ser Asn Pro Ile Asp Glu Lys Leu Val Lys Glu	705		710	
		715		720	
	Ala Val Arg Lys Val Gly Asp Gly Tyr Val Phe Glu Glu Asn Gly Val	725		730	
		735		740	
	Ser Arg Tyr Ile Pro Ala Lys Asn Leu Ser Ala Glu Thr Ala Ala Gly	745		750	
		755		760	
	Ile Asp Ser Lys Leu Ala Lys Gln Glu Ser Leu Ser His Lys Leu Gly	765		770	
		775		780	
	Ala Lys Lys Thr Asp Leu Pro Ser Ser Asp Arg Glu Phe Tyr Asn Lys	785		790	
		795		800	
	Ala Tyr Asp Leu Leu Ala Arg Ile His Gln Asp Leu Leu Asp Asn Lys	805		810	
		815		820	
	Gly Arg Gln Val Asp Phe Glu Ala Leu Asp Asn Leu Leu Glu Arg Leu	825		830	
		835		840	
	Lys Asp Val Ser Ser Asp Lys Val Lys Leu Val Asp Asp Ile Leu Ala	845		850	
		855		860	
	Phe Leu Ala Pro Ile Arg His Pro Glu Arg Leu Gly Lys Pro Asn Ala	865		870	
		875		880	
	Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala Gly	885		890	
		895		900	
	Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Pro Arg Asp Ile Thr	905		910	
		915		920	
	Ser Asp Glu Gly Asp Ala Tyr Val Thr Pro His Met Thr His Ser His	925		930	
		935		940	
	Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln	945		950	
		955		960	
	Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro Ser Thr Asp His Gln	965		970	
		975		980	
	Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg	985		990	
		995			
	Val Lys Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu				
	Gln Tyr Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr				
	Asp His Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr				
	Glu Ala Pro Lys Gly Tyr Thr Leu Glu Asp Leu Leu Ala Thr Val Lys				
	Tyr Tyr Val Glu His Pro Asn Glu Arg Pro His Ser Asp Asn Gly Phe				
	Gly Asn Ala Ser Asp His Val				

<210> 378
 <211> 1378
 <212> PRT
 <213> Unknown

<220>

<223> NEW 26

<221> VARIANT

<222> (1)...(1)

<223> Xaa = Methionine or nothing

<221> VARIANT

<222> (570)...(570)

<223> Xaa = Glycine or nothing

<221> VARIANT

<222> (571)...(571)

<223> Xaa = Proline or nothing

<400> 378

Xaa	Glu	Asn	Ile	Ser	Ser	Leu	Leu	Arg	Glu	Leu	Tyr	Ala	Lys	Pro	Leu
1				5					10					15	
Ser	Glu	Arg	His	Val	Glu	Ser	Asp	Gly	Leu	Ile	Phe	Asp	Pro	Ala	Gln
			20					25					30		
Ile	Thr	Ser	Arg	Thr	Ala	Arg	Gly	Val	Ala	Val	Pro	His	Gly	Asn	His
		35					40					45			
Tyr	His	Phe	Ile	Pro	Tyr	Glu	Gln	Met	Ser	Glu	Leu	Glu	Lys	Arg	Ile
	50					55					60				
Ala	Arg	Ile	Ile	Pro	Leu	Arg	Tyr	Arg	Ser	Asn	His	Trp	Val	Pro	Asp
65					70					75				80	
Ser	Arg	Pro	Glu	Gln	Pro	Ser	Pro	Gln	Ser	Thr	Pro	Glu	Pro	Ser	Pro
				85					90					95	
Ser	Leu	Gln	Pro	Ala	Pro	Asn	Pro	Gln	Pro	Ala	Pro	Ser	Asn	Pro	Ile
			100					105					110		
Asp	Glu	Lys	Leu	Val	Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr
		115					120					125			
Val	Phe	Glu	Glu	Asn	Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asp	Leu
	130					135					140				
Ser	Ala	Glu	Thr	Ala	Ala	Gly	Ile	Asp	Ser	Lys	Leu	Ala	Lys	Gln	Glu
145					150					155					160
Ser	Leu	Ser	His	Lys	Leu	Gly	Ala	Lys	Lys	Thr	Asp	Leu	Pro	Ser	Ser
				165					170					175	
Asp	Arg	Glu	Phe	Tyr	Asn	Lys	Ala	Tyr	Asp	Leu	Leu	Ala	Arg	Ile	His
			180					185					190		
Gln	Asp	Leu	Leu	Asp	Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Val	Leu
		195					200					205			
Asp	Asn	Leu	Leu	Glu	Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys
	210					215					220				
Leu	Val	Asp	Asp	Ile	Leu	Ala	Phe	Leu	Ala	Pro	Ile	Arg	His	Pro	Glu
225					230					235					240
Arg	Leu	Gly	Lys	Pro	Asn	Ala	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile
				245					250					255	
Gln	Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile
			260					265					270		
Phe	Asp	Pro	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr
		275					280					285			
Pro	His	Met	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu
	290					295					300				
Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu	Thr
305					310					315					320
Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly
				325					330					335	
Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu
			340					345					350		
Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly
		355				360						365			
Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu
	370					375					380				
Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu	Glu

385					390					395				400	
Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg
				405					410					415	
Pro	His	Ser	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Arg	Lys
			420					425					430		
Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp
		435					440					445			
Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His
	450					455					460				
Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp
465					470					475					480
Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu
				485					490					495	
Ile	Pro	Gln	Val	Glu	Asn	Ser	Val	Ile	Asn	Ala	Lys	Ile	Ala	Asp	Ala
			500					505					510		
Glu	Ala	Leu	Glu	Lys	Val	Thr	Asp	Pro	Ser	Ile	Arg	Gln	Asn	Ala	
		515					520				525				
Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr	Lys
	530					535				540					
Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu	Leu
545					550					555					560
Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Xaa	Xaa	Asn	Met	Gln	Pro	Ser
			565						570					575	
Gln	Leu	Ser	Tyr	Ser	Ser	Thr	Ala	Ser	Asp	Asn	Asn	Thr	Gln	Ser	Val
			580					585					590		
Ala	Lys	Gly	Ser	Thr	Ser	Lys	Pro	Ala	Asn	Lys	Ser	Glu	Asn	Leu	Gln
		595					600					605			
Ser	Leu	Leu	Lys	Glu	Leu	Tyr	Asp	Ser	Pro	Ser	Ala	Gln	Arg	Tyr	Ser
	610					615					620				
Glu	Ser	Asp	Gly	Leu	Val	Phe	Asp	Pro	Ala	Lys	Ile	Ile	Ser	Arg	Thr
625					630					635					640
Pro	Asn	Gly	Val	Ala	Ile	Pro	His	Gly	Asp	His	Tyr	His	Phe	Ile	Pro
				645					650					655	
Tyr	Ser	Lys	Leu	Ser	Ala	Leu	Glu	Glu	Lys	Ile	Ala	Arg	Met	Val	Pro
			660					665					670		
Ile	Ser	Gly	Thr	Gly	Ser	Thr	Val	Ser	Thr	Asn	Ala	Lys	Pro	Asn	Glu
		675					680					685			
Val	Val	Ser	Ser	Leu	Gly	Ser	Leu	Ser	Ser	Asn	Pro	Ser	Ser	Leu	Thr
	690					695					700				
Thr	Ser	Lys	Glu	Leu	Ser	Ser	Ala	Ser	Asp	Gly	Tyr	Ile	Phe	Asn	Pro
705					710					715					720
Lys	Asp	Ile	Val	Glu	Glu	Thr	Ala	Thr	Ala	Tyr	Ile	Val	Arg	His	Gly
				725					730					735	
Asp	His	Phe	His	Tyr	Ile	Pro	Lys	Ser	Asn	Gln	Ile	Gly	Gln	Pro	Thr
			740						745					750	
Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn
		755					760					765			
Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp
	770					775					780				
Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	Met	Ser	His
785					790					795					800
Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln
			805						810					815	
Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn
			820					825					830		
Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala
		835					840					845			
Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly
	850					855					860				
Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys
865					870					875					880
Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His	His	Ala	Asp
				885					890					895	
Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn
			900					905						910	

<220>
<223> NEW 27

<221> VARIANT
<222> (1)...(1)
<223> Xaa = Methionine or nothing

<221> VARIANT
<222> (344)...(344)
<223> Xaa = Glycine or nothing

<221> VARIANT
<222> (345)...(345)
<223> Xaa = Proline or nothing

<400> 379
Xaa Asp Ile Leu Ala Phe Leu Ala Pro Ile Arg His Pro Glu Arg Leu
1 5 10 15
Gly Lys Pro Asn Ala Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val
20 25 30
Ala Lys Leu Ala Gly Lys Tyr Thr Glu Asp Gly Tyr Ile Phe Asp
35 40 45
Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp Ala Tyr Val Thr Pro His
50 55 60
Met Thr His Ser His Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala Glu
65 70 75 80
Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro Pro
85 90 95
Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala Glu
100 105 110
Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp Arg
115 120 125
Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser Leu
130 135 140
Ile Ile Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp Phe
145 150 155 160
Asp Glu Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu
165 170 175
Leu Ala Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg Pro His
180 185 190
Ser Asp Asn Gly Phe Gly Asn Ala Ser Asp His Val Arg Lys Asn Lys
195 200 205
Ala Asp Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val
210 215 220
Ser Glu Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly
225 230 235 240
Leu Asn Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu
245 250 255
Glu Thr Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro
260 265 270
Gln Val Glu Asn Ser Val Ile Asn Ala Lys Ile Ala Asp Ala Glu Ala
275 280 285
Leu Leu Glu Lys Val Thr Asp Pro Ser Ile Arg Gln Asn Ala Met Glu
290 295 300
Thr Leu Thr Gly Leu Lys Ser Ser Leu Leu Leu Gly Thr Lys Asp Asn
305 310 315 320
Asn Thr Ile Ser Ala Glu Val Asp Ser Leu Leu Ala Leu Leu Lys Glu
325 330 335
Ser Gln Pro Ala Pro Ile Gln Xaa Xaa Asn Met Gln Pro Ser Gln Leu
340 345 350
Ser Tyr Ser Ser Thr Ala Ser Asp Asn Asn Thr Gln Ser Val Ala Lys
355 360 365
Gly Ser Thr Ser Lys Pro Ala Asn Lys Ser Glu Asn Leu Gln Ser Leu
370 375 380

Leu	Lys	Glu	Leu	Tyr	Asp	Ser	Pro	Ser	Ala	Gln	Arg	Tyr	Ser	Glu	Ser
385					390					395					400
Asp	Gly	Leu	Val	Phe	Asp	Pro	Ala	Lys	Ile	Ile	Ser	Arg	Thr	Pro	Asn
				405					410					415	
Gly	Val	Ala	Ile	Pro	His	Gly	Asp	His	Tyr	His	Phe	Ile	Pro	Tyr	Ser
			420					425					430		
Lys	Leu	Ser	Ala	Leu	Glu	Glu	Lys	Ile	Ala	Arg	Met	Val	Pro	Ile	Ser
		435					440					445			
Gly	Thr	Gly	Ser	Thr	Val	Ser	Thr	Asn	Ala	Lys	Pro	Asn	Glu	Val	Val
	450					455					460				
Ser	Ser	Leu	Gly	Ser	Leu	Ser	Ser	Asn	Pro	Ser	Ser	Leu	Thr	Thr	Ser
465					470					475					480
Lys	Glu	Leu	Ser	Ser	Ala	Ser	Asp	Gly	Tyr	Ile	Phe	Asn	Pro	Lys	Asp
				485					490					495	
Ile	Val	Glu	Glu	Thr	Ala	Thr	Ala	Tyr	Ile	Val	Arg	His	Gly	Asp	His
			500					505					510		
Phe	His	Tyr	Ile	Pro	Lys	Ser	Asn	Gln	Ile	Gly	Gln	Pro	Thr	Leu	Pro
		515					520					525			
Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Leu	Pro	Ile	Asn	Pro	Gly
	530					535					540				
Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	Tyr	Gly	Phe	Asp	Ala	Asn
545					550					555					560
Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	Val	Met	Ser	His	Gly	Asp
				565					570					575	
His	Asn	His	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	Thr	Glu	Glu	Gln	Ile	Lys
			580					585					590		
Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly	Leu
		595					600					605			
Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys	Glu
	610					615					620				
Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile	Met
625					630					635					640
Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu	Lys
				645					650					655	
Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His	His	Ala	Asp	Pro	Ile
			660					665					670		
Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr	Glu
		675					680					685			
Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys	Val
	690					695					700				
Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn	Ser
705					710					715					720
Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg	Val
				725					730					735	
Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn	Met
				740				745					750		
Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val	Ser
		755					760					765			
Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu	Leu
	770					775					780				
Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala	Ser
785					790					795					800
Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro	Thr
				805					810					815	
Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe	His
			820					825					830		
Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro	Lys
		835					840					845			
Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn	Ala
	850					855					860				
Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile	Pro
865					870					875					880
Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro	Val
				885					890					895	
Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile	Val

Ser	Leu	Gln	Pro	Ala	Pro	Asn	Pro	Gln	Pro	Ala	Pro	Ser	Asn	Pro	Ile
			100					105					110		
Asp	Glu	Lys	Leu	Val	Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr
		115					120					125			
Val	Phe	Glu	Glu	Asn	Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asp	Leu
	130					135					140				
Ser	Ala	Glu	Thr	Ala	Ala	Gly	Ile	Asp	Ser	Lys	Leu	Ala	Lys	Gln	Glu
145					150					155					160
Ser	Leu	Ser	His	Lys	Leu	Gly	Ala	Lys	Lys	Thr	Asp	Leu	Pro	Ser	Ser
				165						170					175
Asp	Arg	Glu	Phe	Tyr	Asn	Lys	Ala	Tyr	Asp	Leu	Leu	Ala	Arg	Ile	His
			180					185					190		
Gln	Asp	Leu	Leu	Asp	Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Val	Leu
		195					200					205			
Asp	Asn	Leu	Leu	Glu	Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys
	210					215					220				
Leu	Val	Asp	Asp	Ile	Leu	Ala	Phe	Leu	Ala	Pro	Ile	Arg	His	Pro	Glu
225					230					235					240
Arg	Leu	Gly	Lys	Pro	Asn	Ala	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile
245					250					255					
Gln	Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile
			260					265					270		
Phe	Asp	Pro	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr
		275					280					285			
Pro	His	Met	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu
	290					295					300				
Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu	Thr
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Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly
				325					330					335	
Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu
			340					345					350		
Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly
		355					360					365			
Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu
	370					375					380				
Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu	Glu
385					390					395					400
Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg
				405					410					415	
Pro	His	Ser	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Arg	Lys
			420					425					430		
Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp
		435					440					445			
Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His
	450					455					460				
Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp
465					470					475					480
Thr	Glu	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu
				485					490					495	
Ile	Pro	Gln	Val	Glu	Asn	Ser	Val	Ile	Asn	Ala	Lys	Ile	Ala	Asp	Ala
			500					505					510		
Glu	Ala	Leu	Leu	Glu	Lys	Val	Thr	Asp	Pro	Ser	Ile	Arg	Gln	Asn	Ala
		515					520					525			
Met	Glu	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr	Lys
	530					535					540				
Asp	Asn	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu	Leu
545					550					555					560
Lys	Glu	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Xaa	Xaa	Asp	Leu	Thr	Glu	Glu
				565					570					575	
Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His
			580					585					590		
Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn
		595					600					605			
Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala

610	Gly	Ile	Met	Lys	Gln	Tyr	615	Gly	Val	Lys	Arg	Glu	620	Ser	Ile	Val	Val	Asn
625	Lys	Glu	Lys	Asn	Ala	Ile	630	Ile	Tyr	Pro	His	635	Gly	Asp	His	His	His	Ala
					645							650	Gly	Ile	Gly	His	Ser	His
	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser		
				660						665					670			
	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly		
			675					680					685					
	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu		
			690					695					700					
	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln		
705						710					715					720		
	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly		
					725					730						735		
	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu		
				740					745					750				
	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn		
				755				760					765					
	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr		
				770			775					780						
	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr		
785						790					795					800		
	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr		
					805					810					815			
	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala		
				820					825					830				
	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His		
				835				840					845					
	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu		
						850		855				860						
	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys		
865						870					875					880		
	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr		
					885						890					895		
	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys		
				900					905					910				
	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser		
				915				920					925					
	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu		
							930					940						
	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu		
945						950					955					960		
	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val	Ala	Lys	Phe		
					965					970						975		
	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe	Asn	Met	Asp		
				980					985					990				
	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn		
				995				1000					1005					
	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly	Glu	Asn	Lys		
							1010					1020						
	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu	Asn	Gln	Pro		
1025						1030					1035					1040		
	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro	Asn	Glu	Lys		
					1045						1050					1055		
	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu	Asn	Pro	Glu		
					1060				1065					1070				
	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu	Glu	Glu	Ala		
				1075				1080					1085					
	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe	Thr	Ala	Ser		
				1090			1095					1100						
	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp	Gly	Thr	Ile		
1105						1110					1115					1120		
	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn	Leu	Ser	Asp		
					1125					1130						1135		

Phe Ile Ala

<210> 381

<211> 1238

<212> PRT

<213> Unknown

<220>

<223> NEW 29

<221> VARIANT

<222> (1)...(1)

<223> Xaa = Methionine or nothing

<221> VARIANT

<222> (430)...(430)

<223> Xaa = Glycine or nothing

<221> VARIANT

<222> (431)...(431)

<223> Xaa = Proline or nothing

<400> 381

Xaa	Asp	Ile	Asp	Ser	Leu	Leu	Lys	Gln	Leu	Tyr	Lys	Leu	Pro	Leu	Ser
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Gln	Arg	His	Val	Glu	Ser	Asp	Gly	Leu	Ile	Phe	Asp	Pro	Ala	Gln	Ile
			20					25					30		
Thr	Ser	Arg	Thr	Ala	Arg	Gly	Val	Ala	Val	Pro	His	Gly	Asn	His	Tyr
		35					40					45			
His	Phe	Ile	Pro	Tyr	Glu	Gln	Met	Ser	Glu	Leu	Glu	Lys	Arg	Ile	Ala
	50					55					60				
Arg	Ile	Ile	Pro	Leu	Arg	Tyr	Arg	Ser	Asn	His	Trp	Val	Pro	Asp	Ser
65					70					75				80	
Arg	Pro	Glu	Glu	Pro	Ser	Pro	Gln	Pro	Thr	Pro	Glu	Pro	Ser	Pro	Ser
			85						90					95	
Pro	Gln	Pro	Ala	Pro	Asn	Pro	Gln	Pro	Ala	Pro	Ser	Asn	Pro	Ile	Asp
			100					105					110		
Glu	Lys	Leu	Val	Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr	Val
	115						120					125			
Phe	Glu	Glu	Asn	Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asn	Leu	Ser
	130					135					140				
Ala	Glu	Thr	Ala	Ala	Gly	Ile	Asp	Ser	Lys	Leu	Ala	Lys	Gln	Glu	Ser
145					150					155				160	
Leu	Ser	His	Lys	Leu	Gly	Ala	Lys	Lys	Thr	Asp	Leu	Pro	Ser	Ser	Asp
			165						170					175	
Arg	Glu	Phe	Tyr	Asn	Lys	Ala	Tyr	Asp	Leu	Leu	Ala	Arg	Ile	His	Gln
		180						185					190		
Asp	Leu	Leu	Asp	Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Ala	Leu	Asp
	195					200					205				
Asn	Leu	Leu	Glu	Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys	Leu
	210					215					220				
Val	Asp	Asp	Ile	Leu	Ala	Phe	Leu	Ala	Pro	Ile	Arg	His	Pro	Glu	Arg
225				230						235				240	
Leu	Gly	Lys	Pro	Asn	Ala	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile	Gln
			245						250					255	
Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile	Phe
		260						265					270		
Asp	Pro	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr	Pro
	275					280					285				
His	Met	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu	Ala
	290					295				300					
Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu	Thr	Pro
305					310					315				320	
Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly	Ala
				325					330					335	

Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu	Asp	340	345	350
Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly	Ser	355	360	365
Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu	Trp	370	375	380
Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Thr	Leu	Glu	Asp	385	390	400
Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg	Pro	405	410	415
His	Ser	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Xaa	Xaa	Asn	420	425	430
Met	Gln	Pro	Ser	Gln	Leu	Ser	Tyr	Ser	Ser	Thr	Ala	Ser	Asp	Asn	Asn	435	440	445
Thr	Gln	Ser	Val	Ala	Lys	Gly	Ser	Thr	Ser	Lys	Pro	Ala	Asn	Lys	Ser	450	455	460
Glu	Asn	Leu	Gln	Ser	Leu	Leu	Lys	Glu	Leu	Tyr	Asp	Ser	Pro	Ser	Ala	465	470	475
Gln	Arg	Tyr	Ser	Glu	Ser	Asp	Gly	Leu	Val	Phe	Asp	Pro	Ala	Lys	Ile	485	490	495
Ile	Ser	Arg	Thr	Pro	Asn	Gly	Val	Ala	Ile	Pro	His	Gly	Asp	His	Tyr	500	505	510
His	Phe	Ile	Pro	Tyr	Ser	Lys	Leu	Ser	Ala	Leu	Glu	Glu	Lys	Ile	Ala	515	520	525
Arg	Met	Val	Pro	Ile	Ser	Gly	Thr	Gly	Ser	Thr	Val	Ser	Thr	Asn	Ala	530	535	540
Lys	Pro	Asn	Glu	Val	Val	Ser	Ser	Leu	Gly	Ser	Leu	Ser	Ser	Asn	Pro	545	550	555
Ser	Ser	Leu	Thr	Thr	Ser	Lys	Glu	Leu	Ser	Ser	Ala	Ser	Asp	Gly	Tyr	565	570	575
Ile	Phe	Asn	Pro	Lys	Asp	Ile	Val	Glu	Glu	Thr	Ala	Thr	Ala	Tyr	Ile	580	585	590
Val	Arg	His	Gly	Asp	His	Phe	His	Tyr	Ile	Pro	Lys	Ser	Asn	Gln	Ile	595	600	605
Gly	Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser	610	615	620
Leu	Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly	625	630	635
Tyr	Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe	645	650	655
Val	Met	Ser	His	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys	Lys	Asp	Leu	660	665	670
Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	675	680	685
Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	690	695	700
Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	705	710	715
Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	725	730	735
Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	740	745	750
His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	755	760	765
Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	770	775	780
Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	785	790	795
Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	805	810	815
Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	820	825	830
Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	835	840	845
Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn			

850	Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe
865	Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly
					885					890						895
	Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr
				900					905						910	
	Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro
			915					920					925			
	Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp
			930				935					940				
	Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu
945					950					955						960
	Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala
				965					970						975	
	Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn
			980					985					990			
	Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln
		995					1000						1005			
	Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln
		1010				1015						1020				
	Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu
1025					1030					1035						1040
	Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn
				1045					1050						1055	
	Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val
			1060					1065					1070			
	Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe
		1075					1080					1085				
	Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile
		1090				1095				1100						
	Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly
1105				1110						1115						1120
	Glu	Asn	Lys	Pro	Ser	Glu	Asn	Gly	Lys	Val	Ser	Thr	Gly	Thr	Val	Glu
			1125					1130						1135		
	Asn	Gln	Pro	Thr	Glu	Asn	Lys	Pro	Ala	Asp	Ser	Leu	Pro	Glu	Ala	Pro
		1140					1145					1150				
	Asn	Glu	Lys	Pro	Val	Lys	Pro	Glu	Asn	Ser	Thr	Asp	Asn	Gly	Met	Leu
		1155				1160					1165					
	Asn	Pro	Glu	Gly	Asn	Val	Gly	Ser	Asp	Pro	Met	Leu	Asp	Pro	Ala	Leu
		1170			1175				1180							
	Glu	Glu	Ala	Pro	Ala	Val	Asp	Pro	Val	Gln	Glu	Lys	Leu	Glu	Lys	Phe
1185				1190					1195							1200
	Thr	Ala	Ser	Tyr	Gly	Leu	Gly	Leu	Asp	Ser	Val	Ile	Phe	Asn	Met	Asp
			1205						1210						1215	
	Gly	Thr	Ile	Glu	Leu	Arg	Leu	Pro	Ser	Gly	Glu	Val	Ile	Lys	Lys	Asn
			1220				1225						1230			
	Leu	Ser	Asp	Phe	Ile	Ala										
			1235													

<210> 382

<211> 1365

<212> PRT

<213> Unknown

<220>

<223> NEW 30

<221> VARIANT

<222> (1)...(1)

<223> Xaa = Methionine or nothing

<221> VARIANT

<222> (557)...(557)

<223> Xaa = Glycine or nothing

<221> VARIANT
 <222> (558)...(558)
 <223> Xaa = Proline or nothing

<400> 382
 Xaa Asp Ile Asp Ser Leu Leu Lys Gln Leu Tyr Lys Leu Pro Leu Ser
 1 5 10 15
 Gln Arg His Val Glu Ser Asp Gly Leu Ile Phe Asp Pro Ala Gln Ile
 20 25 30
 Thr Ser Arg Thr Ala Arg Gly Val Ala Val Pro His Gly Asn His Tyr
 35 40 45
 His Phe Ile Pro Tyr Glu Gln Met Ser Glu Leu Glu Lys Arg Ile Ala
 50 55 60
 Arg Ile Ile Pro Leu Arg Tyr Arg Ser Asn His Trp Val Pro Asp Ser
 65 70 75 80
 Arg Pro Glu Glu Pro Ser Pro Gln Pro Thr Pro Glu Pro Ser Pro Ser
 85 90 95
 Pro Gln Pro Ala Pro Asn Pro Gln Pro Ala Pro Ser Asn Pro Ile Asp
 100 105 110
 Glu Lys Leu Val Lys Glu Ala Val Arg Lys Val Gly Asp Gly Tyr Val
 115 120 125
 Phe Glu Glu Asn Gly Val Ser Arg Tyr Ile Pro Ala Lys Asn Leu Ser
 130 135 140
 Ala Glu Thr Ala Ala Gly Ile Asp Ser Lys Leu Ala Lys Gln Glu Ser
 145 150 155 160
 Leu Ser His Lys Leu Gly Ala Lys Lys Thr Asp Leu Pro Ser Ser Asp
 165 170 175
 Arg Glu Phe Tyr Asn Lys Ala Tyr Asp Leu Leu Ala Arg Ile His Gln
 180 185 190
 Asp Leu Leu Asp Asn Lys Gly Arg Gln Val Asp Phe Glu Ala Leu Asp
 195 200 205
 Asn Leu Leu Glu Arg Leu Lys Asp Val Ser Ser Asp Lys Val Lys Leu
 210 215 220
 Val Asp Asp Ile Leu Ala Phe Leu Ala Pro Ile Arg His Pro Glu Arg
 225 230 235 240
 Leu Gly Lys Pro Asn Ala Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln
 245 250 255
 Val Ala Lys Leu Ala Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe
 260 265 270
 Asp Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp Ala Tyr Val Thr Pro
 275 280 285
 His Met Thr His Ser His Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala
 290 295 300
 Glu Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro
 305 310 315 320
 Pro Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala
 325 330 335
 Glu Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp
 340 345 350
 Arg Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser
 355 360 365
 Leu Ile Ile Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp
 370 375 380
 Phe Asp Glu Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Thr Leu Glu Asp
 385 390 395 400
 Leu Leu Ala Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg Pro
 405 410 415
 His Ser Asp Asn Gly Phe Gly Asn Ala Ser Asp His Val Gln Arg Asn
 420 425 430
 Lys Asn Gly Gln Ala Asp Thr Asn Gln Thr Glu Lys Pro Ser Glu Glu
 435 440 445
 Lys Pro Gln Thr Glu Lys Pro Glu Glu Glu Thr Pro Arg Glu Glu Lys
 450 455 460
 Pro Gln Ser Glu Lys Pro Glu Ser Pro Lys Pro Thr Glu Glu Pro Glu

465					470					475				480
Glu	Glu	Ser	Pro	Glu	Glu	Ser	Glu	Glu	Pro	Gln	Val	Glu	Thr	Glu
				485					490					495
Val	Glu	Glu	Lys	Leu	Arg	Glu	Ala	Glu	Asp	Leu	Leu	Gly	Lys	Ile
			500					505					510	Gln
Asp	Pro	Ile	Ile	Lys	Ser	Asn	Ala	Lys	Glu	Thr	Leu	Thr	Gly	Leu
		515					520					525		Lys
Asn	Asn	Leu	Leu	Phe	Gly	Thr	Gln	Asp	Asn	Asn	Thr	Ile	Met	Ala
	530					535					540			Glu
Ala	Glu	Lys	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Lys	Xaa	Xaa	Asn
545					550					555				Met
Gln	Pro	Ser	Gln	Leu	Ser	Tyr	Ser	Ser	Thr	Ala	Ser	Asp	Asn	Asn
			565						570					Thr
Gln	Ser	Val	Ala	Lys	Gly	Ser	Thr	Ser	Lys	Pro	Ala	Asn	Lys	Ser
			580					585					590	Glu
Asn	Leu	Gln	Ser	Leu	Leu	Lys	Glu	Leu	Tyr	Asp	Ser	Pro	Ser	Ala
	595						600					605		Gln
Arg	Tyr	Ser	Glu	Ser	Asp	Gly	Leu	Val	Phe	Asp	Pro	Ala	Lys	Ile
	610					615					620			Ile
Ser	Arg	Thr	Pro	Asn	Gly	Val	Ala	Ile	Pro	His	Gly	Asp	His	Tyr
625					630					635				His
Phe	Ile	Pro	Tyr	Ser	Lys	Leu	Ser	Ala	Leu	Glu	Glu	Lys	Ile	Ala
				645					650					Arg
Met	Val	Pro	Ile	Ser	Gly	Thr	Gly	Ser	Thr	Val	Ser	Thr	Asn	Ala
			660					665					670	Lys
Pro	Asn	Glu	Val	Val	Ser	Ser	Leu	Gly	Ser	Leu	Ser	Ser	Asn	Pro
	675						680					685		Ser
Ser	Leu	Thr	Thr	Ser	Lys	Glu	Leu	Ser	Ser	Ala	Ser	Asp	Gly	Tyr
	690					695					700			Ile
Phe	Asn	Pro	Lys	Asp	Ile	Val	Glu	Glu	Thr	Ala	Thr	Ala	Tyr	Val
705					710					715				Val
Arg	His	Gly	Asp	His	Phe	His	Tyr	Ile	Pro	Lys	Ser	Asn	Gln	Ile
				725					730					Gly
Gln	Pro	Thr	Leu	Pro	Asn	Asn	Ser	Leu	Ala	Thr	Pro	Ser	Pro	Ser
			740					745					750	Leu
Pro	Ile	Asn	Pro	Gly	Thr	Ser	His	Glu	Lys	His	Glu	Glu	Asp	Gly
	755						760					765		Tyr
Gly	Phe	Asp	Ala	Asn	Arg	Ile	Ile	Ala	Glu	Asp	Glu	Ser	Gly	Phe
	770					775					780			Val
Met	Ser	His	Gly	Asp	His	Asn	His	Tyr	Phe	Phe	Lys	Lys	Asp	Leu
785					790				795					Thr
Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys
				805					810					Thr
Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr
			820					825					830	Pro
Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu
	835						840					845		Lys
Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile
	850					855					860			Val
Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His
865					870					875				His
His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His
				885					890					Ser
His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys
			900					905					910	Lys
Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val
		915					920					925		Asn
Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala
	930					935					940			Asn
Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys
945					950				955					Lys
Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys
				965					970					Val
Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn
			980					985						Ile

<221> VARIANT
 <222> (558)...(558)
 <223> Xaa = Proline or nothing

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<400> 383
Xaa Asp Ile Asp Ser Leu Leu Lys Gln Leu Tyr Lys Leu Pro Leu Ser
 1          5          10          15
Gln Arg His Val Glu Ser Asp Gly Leu Ile Phe Asp Pro Ala Gln Ile
 20          25          30
Thr Ser Arg Thr Ala Arg Gly Val Ala Val Pro His Gly Asn His Tyr
 35          40          45
His Phe Ile Pro Tyr Glu Gln Met Ser Glu Leu Glu Lys Arg Ile Ala
 50          55          60
Arg Ile Ile Pro Leu Arg Tyr Arg Ser Asn His Trp Val Pro Asp Ser
 65          70          75          80
Arg Pro Glu Glu Pro Ser Pro Gln Pro Thr Pro Glu Pro Ser Pro Ser
 85          90          95
Pro Gln Pro Ala Pro Asn Pro Gln Pro Ala Pro Ser Asn Pro Ile Asp
100          105          110
Glu Lys Leu Val Lys Glu Ala Val Arg Lys Val Gly Asp Gly Tyr Val
115          120          125
Phe Glu Glu Asn Gly Val Ser Arg Tyr Ile Pro Ala Lys Asn Leu Ser
130          135          140
Ala Glu Thr Ala Ala Gly Ile Asp Ser Lys Leu Ala Lys Gln Glu Ser
145          150          155          160
Leu Ser His Lys Leu Gly Ala Lys Lys Thr Asp Leu Pro Ser Ser Asp
165          170          175
Arg Glu Phe Tyr Asn Lys Ala Tyr Asp Leu Leu Ala Arg Ile His Gln
180          185          190
Asp Leu Leu Asp Asn Lys Gly Arg Gln Val Asp Phe Glu Ala Leu Asp
195          200          205
Asn Leu Leu Glu Arg Leu Lys Asp Val Ser Ser Asp Lys Val Lys Leu
210          215          220
Val Asp Asp Ile Leu Ala Phe Leu Ala Pro Ile Arg His Pro Glu Arg
225          230          235          240
Leu Gly Lys Pro Asn Ala Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln
245          250          255
Val Ala Lys Leu Ala Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe
260          265          270
Asp Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp Ala Tyr Val Thr Pro
275          280          285
His Met Thr His Ser His Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala
290          295          300
Glu Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro
305          310          315          320
Pro Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala
325          330          335
Glu Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp
340          345          350
Arg Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser
355          360          365
Leu Ile Ile Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp
370          375          380
Phe Asp Glu Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Thr Leu Glu Asp
385          390          395          400
Leu Leu Ala Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg Pro
405          410          415
His Ser Asp Asn Gly Phe Gly Asn Ala Ser Asp His Val Gln Arg Asn
420          425          430
Lys Asn Gly Gln Ala Asp Thr Asn Gln Thr Glu Lys Pro Ser Glu Glu
435          440          445
Lys Pro Gln Thr Glu Lys Pro Glu Glu Glu Thr Pro Arg Glu Glu Lys
450          455          460
Pro Gln Ser Glu Lys Pro Glu Ser Pro Lys Pro Thr Glu Glu Pro Glu
465          470          475          480

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Glu	Glu	Ser	Pro	Glu	Glu	Ser	Glu	Glu	Pro	Gln	Val	Glu	Thr	Glu	Lys
				485					490					495	
Val	Glu	Glu	Lys	Leu	Arg	Glu	Ala	Glu	Asp	Leu	Leu	Gly	Lys	Ile	Gln
			500					505					510		
Asp	Pro	Ile	Ile	Lys	Ser	Asn	Ala	Lys	Glu	Thr	Leu	Thr	Gly	Leu	Lys
		515					520					525			
Asn	Asn	Leu	Leu	Phe	Gly	Thr	Gln	Asp	Asn	Asn	Thr	Ile	Met	Ala	Glu
	530					535					540				
Ala	Glu	Lys	Leu	Leu	Ala	Leu	Leu	Lys	Glu	Ser	Lys	Xaa	Xaa	Asp	Leu
545					550					555					560
Thr	Glu	Glu	Gln	Ile	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys
			565						570					575	
Thr	Ser	His	Asn	Gly	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr
			580					585					590		
Pro	Gly	Asn	Ala	Lys	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu
		595					600					605			
Lys	Ile	Ala	Gly	Ile	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile
	610					615					620				
Val	Val	Asn	Lys	Glu	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His
625					630					635					640
His	His	Ala	Asp	Pro	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His
			645						650					655	
Ser	His	Ser	Asn	Tyr	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys
			660					665					670		
Lys	Glu	Gly	Asn	Lys	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val
	675						680					685			
Asn	Leu	Leu	Lys	Asn	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala
	690					695					700				
Asn	Gly	Gln	Lys	Arg	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys
705					710					715					720
Lys	Leu	Gly	Ile	Asn	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys
			725						730					735	
Val	Leu	Glu	Lys	Val	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn
			740					745					750		
Ile	Ala	Asn	Phe	Glu	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe
		755					760					765			
Lys	Tyr	Thr	Ile	Ala	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly
	770					775					780				
Thr	Phe	Thr	Val	Pro	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr
785					790					795					800
Ile	Phe	Tyr	Pro	Phe	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro
			805						810					815	
Gln	Phe	Ala	Val	Pro	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp
			820					825					830		
Glu	Phe	His	Gly	Asn	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu
		835					840					845			
Ile	Lys	Leu	Pro	Ile	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala
	850					855					860				
Gly	Asn	Lys	Ile	Pro	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn
865					870					875					880
Gln	Ser	Thr	Tyr	Ile	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln
			885						890					895	
Thr	Asp	Lys	Pro	Ser	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln
			900					905					910		
Glu	Asn	Ser	Lys	Leu	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu
		915					920					925			
Lys	Val	Glu	Lys	Glu	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn
	930					935					940				
Ser	Thr	Leu	Glu	Glu	Val	Pro	Thr	Val	Asp	Pro	Val	Gln	Glu	Lys	Val
945					950					955					960
Ala	Lys	Phe	Ala	Glu	Ser	Tyr	Gly	Met	Lys	Leu	Glu	Asn	Val	Leu	Phe
			965						970					975	
Asn	Met	Asp	Gly	Thr	Ile	Glu	Leu	Tyr	Leu	Pro	Ser	Gly	Glu	Val	Ile
			980					985					990		
Lys	Lys	Asn	Met	Ala	Asp	Phe	Thr	Gly	Glu	Ala	Pro	Gln	Gly	Asn	Gly

995	1000	1005
Glu Asn Lys Pro Ser Glu	Asn Gly Lys Val Ser Thr	Gly Thr Val Glu
1010	1015	1020
Asn Gln Pro Thr Glu	Asn Lys Pro Ala Asp Ser	Leu Pro Glu Ala Pro
1025	1030	1035
Asn Glu Lys Pro Val	Lys Pro Glu Asn Ser Thr	Asp Asn Gly Met Leu
1045	1050	1055
Asn Pro Glu Gly Asn	Val Gly Ser Asp Pro	Met Leu Asp Pro Ala Leu
1060	1065	1070
Glu Glu Ala Pro Ala	Val Asp Pro Val Gln	Glu Lys Leu Glu Lys Phe
1075	1080	1085
Thr Ala Ser Tyr Gly	Leu Gly Leu Asp Ser	Val Ile Phe Asn Met Asp
1090	1095	1100
Gly Thr Ile Glu Leu	Arg Leu Pro Ser Gly	Glu Val Ile Lys Lys Asn
1105	1110	1115
Leu Ser Asp Phe Ile	Ala	
1125		

<210> 384
 <211> 913
 <212> PRT
 <213> Unknown

<220>
 <223> NEW 32

<221> VARIANT
 <222> (1)...(1)
 <223> Xaa = Methionine or nothing

<221> VARIANT
 <222> (344)...(344)
 <223> Xaa = Glycine or nothing

<221> VARIANT
 <222> (345)...(345)
 <223> Xaa = Proline or nothing

<400> 384

Xaa Asp Ile Leu Ala Phe Leu Ala Pro Ile Arg His Pro Glu Arg Leu	
1 5 10 15	
Gly Lys Pro Asn Ala Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val	
20 25 30	
Ala Lys Leu Ala Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp	
35 40 45	
Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp Ala Tyr Val Thr Pro His	
50 55 60	
Met Thr His Ser His Trp Ile Lys Lys Asp Ser Leu Ser Glu Ala Glu	
65 70 75 80	
Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr Pro Pro	
85 90 95	
Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly Ala Glu	
100 105 110	
Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu Asp Arg	
115 120 125	
Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly Ser Leu	
130 135 140	
Ile Ile Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu Trp Phe	
145 150 155 160	
Asp Glu Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu Asp Leu	
165 170 175	
Leu Ala Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg Pro His	
180 185 190	
Ser Asp Asn Gly Phe Gly Asn Ala Ser Asp His Val Arg Lys Asn Lys	
195 200 205	
Ala Asp Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val	

210	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His	Ala	Gly
225	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp	Thr	Glu
					245					250						255
	Glu	Thr	Glu	Glu	Glu	Ala	Glu	Asp	Thr	Thr	Asp	Glu	Ala	Glu	Ile	Pro
					260					265						270
	Gln	Val	Glu	Asn	Ser	Val	Ile	Asn	Ala	Lys	Ile	Ala	Asp	Ala	Glu	Ala
					275					280						285
	Leu	Leu	Glu	Lys	Val	Thr	Asp	Pro	Ser	Ile	Arg	Gln	Asn	Ala	Met	Glu
					290					295						300
	Thr	Leu	Thr	Gly	Leu	Lys	Ser	Ser	Leu	Leu	Leu	Gly	Thr	Lys	Asp	Asn
					305											310
	Asn	Thr	Ile	Ser	Ala	Glu	Val	Asp	Ser	Leu	Leu	Ala	Leu	Leu	Lys	Glu
					315											320
					325											330
	Ser	Gln	Pro	Ala	Pro	Ile	Gln	Xaa	Xaa	Asp	Leu	Thr	Glu	Glu	Gln	Ile
					340					345						350
	Lys	Ala	Ala	Gln	Lys	His	Leu	Glu	Glu	Val	Lys	Thr	Ser	His	Asn	Gly
					355					360						365
	Leu	Asp	Ser	Leu	Ser	Ser	His	Glu	Gln	Asp	Tyr	Pro	Gly	Asn	Ala	Lys
					370					375						380
	Glu	Met	Lys	Asp	Leu	Asp	Lys	Lys	Ile	Glu	Glu	Lys	Ile	Ala	Gly	Ile
					385					390						395
	Met	Lys	Gln	Tyr	Gly	Val	Lys	Arg	Glu	Ser	Ile	Val	Val	Asn	Lys	Glu
					405											410
	Lys	Asn	Ala	Ile	Ile	Tyr	Pro	His	Gly	Asp	His	His	His	Ala	Asp	Pro
					420					425						430
	Ile	Asp	Glu	His	Lys	Pro	Val	Gly	Ile	Gly	His	Ser	His	Ser	Asn	Tyr
					435					440						445
	Glu	Leu	Phe	Lys	Pro	Glu	Glu	Gly	Val	Ala	Lys	Lys	Glu	Gly	Asn	Lys
					450					455						460
	Val	Tyr	Thr	Gly	Glu	Glu	Leu	Thr	Asn	Val	Val	Asn	Leu	Leu	Lys	Asn
					465					470						475
	Ser	Thr	Phe	Asn	Asn	Gln	Asn	Phe	Thr	Leu	Ala	Asn	Gly	Gln	Lys	Arg
					485					490						495
	Val	Ser	Phe	Ser	Phe	Pro	Pro	Glu	Leu	Glu	Lys	Lys	Leu	Gly	Ile	Asn
					500					505						510
	Met	Leu	Val	Lys	Leu	Ile	Thr	Pro	Asp	Gly	Lys	Val	Leu	Glu	Lys	Val
					515					520						525
	Ser	Gly	Lys	Val	Phe	Gly	Glu	Gly	Val	Gly	Asn	Ile	Ala	Asn	Phe	Glu
					530					535						540
	Leu	Asp	Gln	Pro	Tyr	Leu	Pro	Gly	Gln	Thr	Phe	Lys	Tyr	Thr	Ile	Ala
					545					550						555
	Ser	Lys	Asp	Tyr	Pro	Glu	Val	Ser	Tyr	Asp	Gly	Thr	Phe	Thr	Val	Pro
					565					570						575
	Thr	Ser	Leu	Ala	Tyr	Lys	Met	Ala	Ser	Gln	Thr	Ile	Phe	Tyr	Pro	Phe
					580					585						590
	His	Ala	Gly	Asp	Thr	Tyr	Leu	Arg	Val	Asn	Pro	Gln	Phe	Ala	Val	Pro
					595					600						605
	Lys	Gly	Thr	Asp	Ala	Leu	Val	Arg	Val	Phe	Asp	Glu	Phe	His	Gly	Asn
					610					615						620
	Ala	Tyr	Leu	Glu	Asn	Asn	Tyr	Lys	Val	Gly	Glu	Ile	Lys	Leu	Pro	Ile
					625					630						635
	Pro	Lys	Leu	Asn	Gln	Gly	Thr	Thr	Arg	Thr	Ala	Gly	Asn	Lys	Ile	Pro
					645					650						655
	Val	Thr	Phe	Met	Ala	Asn	Ala	Tyr	Leu	Asp	Asn	Gln	Ser	Thr	Tyr	Ile
					660					665						670
	Val	Glu	Val	Pro	Ile	Leu	Glu	Lys	Glu	Asn	Gln	Thr	Asp	Lys	Pro	Ser
					675					680						685
	Ile	Leu	Pro	Gln	Phe	Lys	Arg	Asn	Lys	Ala	Gln	Glu	Asn	Ser	Lys	Leu
					690					695						700
	Asp	Glu	Lys	Val	Glu	Glu	Pro	Lys	Thr	Ser	Glu	Lys	Val	Glu	Lys	Glu
					705					710						715
	Lys	Leu	Ser	Glu	Thr	Gly	Asn	Ser	Thr	Ser	Asn	Ser	Thr	Leu	Glu	Glu
					725					730						735

[illegible]